MENTALLY HANDICAPPED CHILDREN*

By J. C. Marfatia

"A large part of the problems of the mentally defective children is due, not directly to their intellectual limitations but to their inability to adjust to the demands of the society", says Dr. Marfatia. He critically analyses, in the following article, the causes and effects of the frustration in mentally defective children, born of this social maladjustment and suggests methods of tackling them.

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Though no statistical data are available about mentally deficient persons in India, it is estimated that they constitute from 1% to 5% of our population. They range in their capacity for learning and adjustment from those who are completely dependent to those who can, with proper training and supervision, fill an accepted place in society. The degree to which the latter are given suitable training and supervision determines whether they are an asset or a liability to society.

To be born mentally deficient is to place a long-term responsibility upon parents and the community. Every child has a right to the security of a home, education, health, recreation, and suitable employment. Some children, however, because of handicaps have to have these rights or opportunities tailor-made if they are to get real benefit from them.

There are in England and Wales some 300,000 mentally defective persons; a small proportion of these are cared for in institutions at an average cost of £1 per week. Something like ½ of this cost comes from the Government. Those defectives who are not in institutions are at large in the community and are breeding at a prodigious rate, while the rest of the population is diminishing. Thus, in a few years' time, institutional provision will have to be made, at enormous expense, for a greatly increased number of mental defectives. (The I. Q. and the number of children in the family—inverse ratio.)[1]

Classification of Mental defect.—(1) Administrative Grouping—Legal definitions of idiots, imbeciles, feeble-minded—(Britain). This classification has no scientific value.

(2) In America—Biometrical considerations—According to I. Qs.

(3) Congenital and acquired Amentia.

(4) Tredgold's classification—Primary and Secondary Amentia:—

(A) Primary Amentia—(i) simple; (ii) Microcephalic; and (iii) Mongolian.

(B) Secondary Amentia—due to organic disease of the brain.

(5) Subcultural and Pathological Amentia (E. O. Lewis's classification). He uses the analogy of mental ability with physical height. Outside a certain range, it is scarcely possible to describe as normal the individuals having these extreme measurements. Two groups: (1) The lower part of the normal frequency distribution curve of intelligence—Subcultural. (2) Pathological cases.

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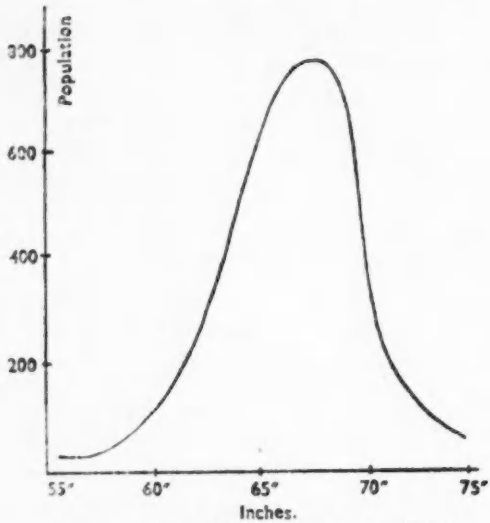

Fig. 1 — Normal distribution curve — Height.

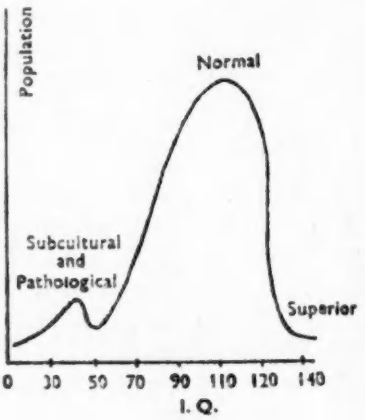

Fig. 2.

According to E. O. Lewis, many defectives appear to differ quantitatively rather than qualitatively from their non-defective fellows; indeed, they are often regarded as merely the tail end of a normal variation, and such have been termed by him as 'Sub-cultural' defectives.

"After making allowances for factors that influence scores in intelligence tests, it seems to me (E. O. Lewis) that a conservative estimate of the proportion of the population with 60% to 85% of normal intelligence would be 5%. Various names have been given to this group of the community.

"Oligophremia", on the continent, comprises not only this group but the lower grade mental defectives. Americans refer to this group as "morons". In England, 'backward' 'dull' or 'retarded'." E. O. Lewis suggested the term "Subcultural".[2]

According to E. O. Lewis, the number of the 'Subcultural' group in any community may be said to be an index of the general level of intelligence of the whole community. This cannot be said of lower grade defectives —idiots and imbeciles. The large majority of these are due to pathological factors, or if the condition is inherited, to genes that are comparatively rare. This group forms an integral part of the general population.[3]

The right approach to the 'Subcultural' section of the community is that of regarding it as an integral part of the general community. The problem of the Mentally Deficient can be solved by their segregation, temporarily or permanently, in institutions or colonies. When dealing with the Subcultural group the solution cannot be one of segregation, but must be that of assimilation into the general community.[4]

The complacent attitude that "there have always been and always will be hewers of wood and drawers of water" must be abandoned.

Emotional and Social Problem:—(*Social handicaps*).—A large part of the problems of the mentally defective is due, not directly to their intellectual limitations but primarily to their inability to adjust to the demands of the society. Since society often does not fully comprehend the true nature of his handicap, it tends to make the same social demands of

the retarded individual as it does of his brighter brothers, with the result that the mentally defective individual becomes constantly frustrated. Such an individual is predisposed to many inevitable frustrations because of his limited abilities and also because he, much more than the brighter child, is likely to lack the basic sense of security which only a wholehearted acceptance by the family group surrounding the individual can give. The parents' inability to accept this fact seemed to be expressed by the frequent change of doctors and clinics, and the continued search for some new medication or treatment for the child. In some cases the time, energy, and great financial sacrifice that the parents make in search of some help is very impressive.

Very often parents repeat over and over again a description of some small accomplishment of their child, completely ignoring the fact that it may be the every-day performance of normal children half the age of their child.[5]

The insistence that they believed something more could be done for the child is frequently expressed in terms of trying Glutamic Acid, endocrine therapy, etc., and even wanting to "offer" their child for some surgical or medicinal "experimentation." In each case, with quantitative variations, the manifestation of such anxiety is due to intense guilt and conflict in regard to the impulse to reject the child. Parental rejection always exists to some degree even though unexpressed or disguised by over-concern and protectiveness.

It is a basic principle of mental hygiene and personal counselling that when a problem situation arises we may either try to change the individual, so that he will be able to handle the situation, or we may attempt to alter the conditions under which he functions and with which he has to contend. To do the latter, we try to reduce the number and the intensity of frustrating elements by simplifying the individual's environment so that the solution of his problem is again within his power.

As far as we now know, we can do very little to alter the basic intellectual handicap of the mentally retarded. We can do a great deal, however, to influence many of his social reactions, particularly by controlling the kind of social relationships which he experiences with others from the very beginning of his life and which determine his basic attitudes towards other people. And we can also make certain adjustments in his immediate family atmosphere, as well as in the broad social milieu in which he lives.

The early home training must be designed to give him a sense of basic security through genuine acceptance and affection by his own immediate family. We have come to recognize that normally a child accepts our standard of behaviour and ideals of conduct and submits to the restrictions which we place upon his behaviour only because he is motivated by affection and by a desire to please a loving parent. This applies also to the mentally retarded child except that in his case the need for affection is even greater, as his handicap limits his self-sufficiency in other areas and cuts him off from other possible sources of satisfaction. But at the same time as his need for affection is more, parents find it difficult to give him that much affection, because to most of them, a retarded child is a lost hope as well as a continuous and ever-repeated disappointment.

A retarded youngster, because he cannot come up to the expectations of his parents and siblings, is forced to live in an atmosphere of continual frustration and rejection. It is this frustration and non-acceptance by those who are important to him, combined with his own reactions to this bewildering

situation, which makes for social maladjustment and transforms an ineffectual but otherwise inoffensive retarded child into a serious social problem, a complication which in its turn, makes the youngster even less acceptable to his already ashamed and disappointed parents. It is very easy to have the retarded child become the symbol of many of the more general frustrations of life and thereby constitute at once a bond and a barrier between the husband and the wife. The issue of the child's defectiveness frequently seems to become quite unconsciously "the pawn in the battle between marital partners."[6]

Some provision must be made to secure an enlightened sympathy and a genuine understanding, not only by those who are in charge of our welfare agencies, our educational systems and the police courts, but also by the medical profession, institutional personnel, foremen and supervisors in industry and, especially, parents. Specifically, of course, the problem of the retarded individual, during his early years at least, is primarily a problem of his family. It is the family, therefore, that needs the utmost help in learning to accept the feeble-minded child, because on this basic acceptance will depend the success of all subsequent care and training.

While siblings are protective of the defective they appear so because of their loyalty to the family group rather than because of loyalty to the defective. The danger of the siblings feeling ashmed to bring their friends into their home increases as they progress through school.

Sometimes the sibling of a defective may be disturbed if contemplating marriage for fear any offspring may prove defective.

The muscular activity of mentally retarded children is limited; it is further limited by overprotectiveness of the parents. This may cause extreme restlessness.

Toilet training is a delayed process. Bed-wetting is found quite frequently. Many mental defectives, because of multiple reasons, never learn to play. Sometimes the reason is physical handicap, over—or under-protective environment or lack of opportunity for proper playmates. If optimum conditions for play can be established, the defective will play in a manner similar to the normal of the same mental age groups, and will benefit from that play. The defective is often notorious for his desire to collect useless possessions, and may, unless watched, collect and hoard all kinds of junk.

Sex problems.—There are several states (in the U.S.A.) that provide legal justification for castration of defectives. It is true that sex is often a dangerous hazard to the defective girl. It is also true that a defective is not often safe sexually in situations comparable to the normal. It is true that some defectives sexually are physically developed beyond the average. It is not a problem so much of over-sexed as of lack of adequate and normal control on their behaviour. Masturbation is another problem.

He resorts to food as a means of compensation for other emotional drives that cannot be given normal channel; prolonged addiction to nursing bottle, regurgitation or rumination, mild gluttony, immense appetite are some of the other problems. They tend to put on weight, particularly female defectives.

Much of the emotional problems of the defective, no matter how expressed, resolve into problems in the sphere of emotional security. That this is so is natural because of the general rejection of them as individuals by their fellowmen, individually and collectively.

The social and emotional problems of the defective are chargeable to the normal as much as to the defective. The defective's

problems center primarily on matters of security and thwarted opportunity for expression.

Inability to keep jobs results in chronic unemployment. Mental defect is one of the most important factors in the causation of juvenile delinquency—truancy, stealing, vagrancy, etc. Prostitution is another end result. From the standpoint of Social Medicine, the 'Subcultural' group presents larger and more difficult problems than the mentally defective. The majority of our chronic social problems—pauperism, slumdon and recidivism (the so-called Social Problem Group)—are associated, not so much with the 300,000 mental defectives in the country, but with the two million borderline group.[7]

Educational Problems.—(A) The mentally defective:

The importance of detecting mental defect cannot be over-emphasized. The well-informed and alert teacher should be able to detect mental deficiency in its early stages. If the child is allowed to drift along with normal children, not only will he not be able to keep pace with them in studies but untold damage will be done to his personality. Development of inferiority feelings is inevitable due to criticism, unfavourable comparisons or punishment. This will lead to further warping of the personality. Complaints are frequently made of restlessness and lack of concentration. Very often this is the result of unsatisfactory methods of teaching. Admittedly it is difficult to keep a class of fortyfive children uniformly interested when their mental ages and their attainment ages vary very greatly as is often the case. A feeling of social rejection or being a social outcast (as described under social and emotional problems) often leads to behaviour problems like mischiefs, truancy, lying and stealing.

(B) *The Dull Child.*—Those in whom the intellectual development is low but not so low as to amount to feeble mindedness, form an important group in the school population; their I. Q. ranges from 70 to 90. They are the last benchers. A diagnosis of dullness does not necessarily imply that the child is without life or spirit, slow of motion or sleepy. Many dullards, despite their limited intellect, are mentally alert and consequently a source of puzzlement to their parents or teachers who find it hard to understand how they can be astute in practical things, yet extremely dull in dealing with abstract matters, or why they should make so little progress in school work when they display so much interest and activity. It is easy to be misled by a bright manner, verbal fluency, mental liveliness and a degree of self-confidence; the true nature of the case can be determined by the use of a valid intelligence scale, and confirmed by a finding of associated backwardness in school subjects, especially in the mastery of arithmetical processes, and by retardation in general knowledge, ability to attend to personal needs or take normal responsibilities.

A considerable proportion of delinquent children, and consequently of the approved school population, are found to be dull in intellect. The primary reason for this lies in the fact that they have less foresight, are less able to profit from experience and have less ability to resist evil influences than more able children because of their being very suggestible. For the most part they are the progeny of dull parents who lack the ability to train or discipline them. Inadequate provision for the dull in the educational system also conduces to habitual truancy and wandering, and hence to larceny or other offence as a form of recreation or a means of subsistence. The dull child is a slow learner, but is educable, requiring special methods of education suited to his capacities. In senior school organised on the three stream system whereby children of like ability

are grouped together, he is catered for in the 'C' Classes, but failing such provision, he is liable to become an unhappy and unsatisfactory member of the school community. All cases of natural dullness should be recognised by the time the child is seven years of age, not only in order that they may receive education suited to their needs, but so that their social development may be watched, and delinquent tendencies checked or controlled. "When, by dint of concentrated tuition, they manage to scrape through these tests, their school career is apt to be marred by repeated failure and undeserved punishment, reprimand or worse."[8]

Measures to meet the Problem of the Mentally Handicapped Children.—(1) *Early detection* of mentally retarded children is very essential. This can be brought about by obtaining the services of a qualified psychologist, preferably attached to the school. In the absence of such a service, health visitors may serve the purpose. The teachers during their training must have intensive training in child psychology.

(2) *Special Classes.*—We know that learning ability is influenced by many factors other than intellectual ability; by the child's state of physical health, by the encouragement and opportunities given him by his parents, by his adjustment to his environment, his adaptability to social demands, and by the stability and balance of his emotional life.

Careful division into A, B and C. streams, the use of individual teaching and activity methods, which allow children to work at their own pace and on projects which interest them, usually overcome the difficulty, and an experienced teacher who is a good organiser can arrange that the backward as well as the bright child is fully occupied. The provision of remedial teaching and special classes, of course, helps enormously.

Special Classes not only help the child to develop his mental capacity to its fullest extent, but they prevent anti-social behaviour by ensuring that the dull child gains satisfaction in his school life, and so is not so liable to seek satisfaction through delinquency, truancy and the like.

It is essential that the classes are small so that the child can have a great deal of individual attention. By remaining in the same class throughout his secondary school career, he gains a feeling of security and a sense of belonging. By joining the general school activities, or joining his age group for certain subjects, such as, physical training, dancing or cooking, he feels that he is part of the school and is not isolated by virtue of his incapacities. The stigma is much less than in a special school. The success of these classes varies according to the ability and enthusiasm of the teacher. It is, of course, essential that the curriculum should have a practical bias. Even if the special class child can never be a good reader, he or she may become an excellent gardener, or cook or needle woman.

Simple English and practical Arithmetic are taught, but a minimum standard only is aimed at. Simple dramatic work, choral speech, rhythmic work, dancing and some form of sense training are all valuable to this type of child. Above all, as the dull child is usually so immature in outlook and emotional in development generally, a wise teacher can teach simple standards of conduct and manners which can improve the general poise and self-confidence of the child considerably. Physical development is, however, seldom retarded, and when sexual awakening takes place they may lack normal control and are often suggestible and very impressionable. They need careful and simple sex education and a good deal of training in mothercraft. They can make excellent mothers when they

are older, and if a pride in home-making can be developed in school days, their later development may be very satisfactory. These children will, of course, benefit perhaps more than any others by the raising of the school leaving age, as they are usually so very immature at 14 years of age. The important point is to link the natural interests of this age with simplified material. The use of newspapers, magazines, fashion papers for instance, can be useful. An intelligent use of the radio is a useful educational aid, and any method of presenting material pictorially, e.g., by the cinematograph, the epidiascope or by posters, helps to bring the facts home to the child. Opportunities to pay visits of interest, to see and handle models, and to carry out simple projects should be encouraged. The dull child, just as the very young child, learns best by the use of his senses, by feel and touch, by active rather than by passive means. He is seldom an attentive listener and is poor at following verbal instructions.

Special class teaching demands much ingenuity and resourcefulness and brings its own rewards. One must remember that dull children may suffer from severe emotional inhibitions which prevent normal development. By patient and kindly methods, the child may reveal latent abilities and prove capable of higher attainment than was previously suspected.[9]

(3) *Special Schools.*—Another measure of great importance which would go a long way in meeting the problem would be the establishment and administration of special schools and perhaps of hostels for mentally infirm children.

Children are frequently frank and critical in their opinions. Their views may be invited by asking them to write essays on such subjects as the ideal school, co-education, home-work, punishment, premises, size of school and amenities, the subject chosen depending on the age of the child.

(4) *Provision of Legal Acts to meet the Problem.*—An act, like the Education Act of 1944, England, modified to suit Indian conditions, would be invaluable.

The Education Act of 1944.—(England)

(a) Has made education of every child compulsory and free.

(b) In relation to educationally subnormal children, it laid down that "all children between the ages of 2 and 16 years, capable of being educated either in ordinary schools or in special schools, should be retained within the educational system, and that any child found incapable of education by reason of disability of mind should be reported to the Mental Deficiency Authority." Section 57 (3) and (4) of the Act "imposes upon the local education authority the duty of issuing to the mental deficiency authority a report in the case of any child over the age of 2 years, who is suffering from a disability of mind of such a nature or to such an extent as to make him incapable of receiving education at school or is mentally disabled in such manner that it is inexpedient that he should be educated in association with other children". In other words, early detection of mentally retarded children has been made possible.

(c) Under the provisions of the Act of 1944, the council, L. C. C., as the local education authority, is responsible for the primary and secondary education of blind children from 2 to 16 years and for further education and training upto the age of 21 years. Education of blind children is compulsory upto 16 years of age but not afterwards.

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WORKERS' EDUCATION IN THE U. S.

By John Connor

The system of workers' education in the United States today is an excellent example of a balanced or realistic spirit of independence in action. Holding this view, Mr. Connor gives, in the following article, an outline of the organizational structure of the workers' education movement in the U. S.

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A strong spirit of independence is undoubtedly the outstanding characteristic of the American way of life. This quality has ever been the natural well-spring from which is drawn the power needed for the organization and the development of the social, political and economic order of the United States. It is the heart of a truly democratic society. Such a dynamic force is composed of two essential elements. The first may be termed the element of self-reliance, or a recognition of the individual's strength and worth. In practical affairs, it gives rise to the acknowledgment of the basic human freedoms, such as, liberty of conscience, expression, assembly, and work. The second and more important one is usually described as the element of responsibility, or the consciousness of the individual's moral obligation to make the best use of his natural ability to improve and develop himself. This principle points to the primary duties of man, like the necessity of educating himself, of taking part in discussions, of joining associations of his fellowmen, and of earning his daily bread by honest toil. Combined in due proportion, these factors produce a tremendous propelling charge for human advancement. It is clear, therefore, that this realistic spirit of independence, or individualism as it is sometimes called, does not rule out the possibility, nor even the necessity of co-operation. Such a perverted attitude as one that would advance either of these two alternatives, is a product of a highly imperfect blending of the human rights and the human duties ingredients. Too much of the first produces selfishness and an anti-social outlook, while an excess of the second leads to tyranny through the medium of a totalitarian mentality. When the two components are properly balanced, we derive voluntarily harmonious relations between persons and groups.

It is to be expected that this natural spirit of independence should permeate the whole structure of worker and workers' organizational contacts in the United States. For the laboring members of American society have played highly important roles in the drama of its development. As the artisans and the craftsmen of that story, much of its brilliance and firm stability is a consequence of their handwork. Hence the sturdy individualism which has marked the American labor movement throughout its entire history to date, is fully understandable, and thoroughly consistent with the American social tradition. From an external point of view, this spirit of independence in American trade-unionism has manifested itself in the form of a relentless effort to act of, by, and for itself in the social, economic and political orders. The American labor movement has not been directed by any particular social or economic school of thought, nor has it been controlled by any political party. On the internal side of its operations, this individualistic tendency has caused it to emphasize the autonomy of the local union, and the personality of the individual worker. Within the limits of both these functional areas, however, there is ample room for mutual co-operation between the respective independent entities located therein. The system of workers' education in the

United States today is an excellent example of this balanced or realistic spirit of independence in action.

Observing first the internal order of the process, we find that the individual locals of the various independent and federated, national, and international unions are the focal points of activity. Each of these units, which usually comprises the organized workers in a single plant, although it does at times include either all the union men working in several small plants, or a portion of those working in a very large plant, in which case there would be two or more locals for such plant, will ordinarily have a special committee on education. This body is charged with the responsibility of initiating and supervising some kind of program for the membership. Such programs vary quite widely in the degree of their comprehensiveness, the ultimate determinant of that factor being the amount of enthusiasm displayed by the membership. In weak locals, there may be only occasional lectures or motion pictures. In very active centers, there will be regular and formal classes throughout the normal school year, supplemented by summer institutes, as well as by the above-mentioned sporadic events. Between these two extremes can be found many other kinds of programs of various intermediate shadings.

On top of this basic educational structure will usually be superimposed several additional layers, so to speak, each with a widening scope and a growing complexity. These will be either city-wide, state-wide, region-wide or national in their coverage.

Supported by contributions from the member locals, these upper echelons make possible the offering of certain courses, lectures and other informational media which would not be accessible to the local separately. Such intricate relations between the unions' numerous independent parts are clear-cut examples of the tempering of individualism with cooperation.

When the external features of the system are considered, we note that important connections are maintained with other social organizations on every one of the several internal levels of this educational edifice. Thus the material facilities and the teaching personnel of numerous colleges and universities are drawn upon in the prosecution of the formal classroom courses. Some 60 or more of these seats of higher learning offer assistance in this regard, and there are many special, independent labour schools performing a similar function besides. These services compensate for the unions' lack of their own educational equipment.

A consciousness of the importance of maintaining good relations with the many community-service organizations has been developing among the trade unions of late. This has stimulated a further broadening of their outside contacts, both educationally and generally. Representatives of numerous social agencies are invited to discuss the workings of their particular enterprises with the union membership. Through them the workers are made familiar with the general features of the public health, welfare, recreation and similar projects in their respective communities. Positive efforts are also being made by the unions to qualify some of their members for appointment to positions of authority on the staffs of many of these public bodies; for labor has recently discovered the rather anomalous fact that, while approximately 90% of the users of these community facilities are workers, practically none of the officials in charge of the same are from the labor groups.

Increasing emphasis is being placed upon political information and action throughout trade-union ranks in the United States. Next

to collective bargaining, this is probably the most keenly studied area of labor affairs. Time and again labor leaders have been heard to sound the warning that the unions are losing many of the gains won through collective bargaining, as a result of adverse Governmental legislation and administration. So the word has gone out to all locals urging the exercise of constant political as well as economic vigilance. This strategy has affected workers' education in at least two fundamental ways. Strenuous efforts are being made to develop intelligent voting habits on the part of the rank and file members; and at the same time, great stress is being placed upon the cultivating of statesmanlike labor representatives, who can and will take their rightful places in the various councils of Government. This is believed to be the proper way for the trade union to participate in a democratic political order. To accomplish these objectives, the unions are endeavoring, initially at least, to rely upon their own leadership for the necessary instruction. Where this is insufficient, and it is only natural that there are many instances of such deficiencies, outside aid is solicited from the schools, and not infrequently, from Government officials. The latter procedure is followed very cautiously, however, and with the utmost circumspection. Governmental encroachment has always been recognized as the greatest threat to an independent labor movement; so the latter cannot very well avoid adopting something of a defensive attitude in all of their relations with the former. This traditional tendency has been greatly accentuated, of course, since the passage of the Taft-Hartley Act.

It should be clearly understood that, throughout all of these cooperative arrangements with outside organizations, whether they be educational, social, or governmental, the unions retain directing and supervisory control. The other participants fill a supplementary or auxiliary role, performing only those services which the unions are unable to do themselves.

It is in the economic sector of labor relations that the unions display most sharply their spirit of independence. Having fought so long and so hard, with very little aid from outside sources, for their objectives in this field, they have become, to a certain extent at least, divorced from and psychologically antagonistic to non-labor operations therein. Furthermore, they are inclined to be satisfied with, and rather strongly confident in their own leaders' proven ability in these matters. This outlook is clearly shown by the way in which the unions scrupulously strive to avoid having any one but members of their own group handle most of the economic courses in workers' education. This is so even when the programs are conducted on the college and university campus. Only in markedly exceptional cases is this rule ever held in abeyance. Collective bargaining, grievance procedure, time study, job evaluation and classification, steward training, union organization and administration are almost invariably taught by union officials. While the advisability of this habit of in-breeding in the realm of ideas may be debatable, from the standpoint of educational theory, it is certainly understandable, and perhaps justifiable on the practical level, when considered in its historical context. If experience be the best teacher, as is generally recognized to be true, what economic expert can hope to match wits successfully with the veteran labor leader on the platform of labour economics? Nevertheless, and inspite of this intense subjective bias, something of the co-operative attitude can be found even in this division of workers' education. Background courses in economic theory, and specialized training in the more recent developments of economic practice are usually presented by members of the university faculties, and by government

representatives. Such a relatively closed door policy is not likely to surprise any one, although it does cause keen disappointment in some quarters. The latter are, for the most part, sections of the general public. The thought prevailing amongst them is, if the two parties could be brought into closer contact on the academic plane, that fact might conceivably entail more harmonious relations between them on the operational level. There does appear to be some merit in the suggestion, although its effectiveness in practice would be rather difficult to measure. It should be added in passing that some such association between the two opponents is accomplished in many of the independent labor relations schools. These meetings are strictly unofficial, however, and do not bear the union made label.

From this very generalized survey of the workers' education movement in the United States, it is apparent that the idea of union autonomy, particularly the autonomy of the individual locals is the dominant theme. This may be recognized as a natural outgrowth of the spirit of independence which sparks the American form of trade-unionism. The concept of independence or individualism which prevails here is not a narrow, negative, excessive emphasizing of the importance of a self-contained group, however. Rather is it a broad, positive, liberal ideal, which recognize the inherent value of numerous other social groups besides itself, and the need for close co-operation with them.

Role of School.—The American trade unions were not able to meet the full requirements of an adequate educational program with their training facilities alone. Hence they have found it necessary to turn to the schools for assistance in this regard. Such aid as is usually found to be available there, comes in the main, from two distinct types of academic organizations. One of these has been previously referred to as an independent labor school. The other has been described as an associated institution, one forming an integral part of a college or university. Both kinds of specialized training agencies are fairly numerous throughout the United States, although the latter group would appear to predominate, and each makes an important contribution, in its own right to the advancement of workers' education. Since these professional services involve the more complex and comprehensive features of this whole program, some knowledge of the way in which they function is necessary for a clear understanding of the workers' educational system.

The term independent, as used in conjunction with a labor school, really has a twofold significance. In one respect, it refers to the organizational and administrative autonomy of the institution itself. Such a school develops and maintains its facilities and its services in accordance with the judgment and the experience of its own officials. These individuals exercise a final authority over the internal affairs of the organization's operations. From another standpoint, that of the association's external relations, this independence means that the students who accept these services and use the facilities do so as private individuals. That is to say, as a general rule, each person attending the school will handle for himself the business of selecting the courses and the classes which he intends to follow. Furthermore, each student will ordinarily be responsible to the school for expenses incurred during attendance. In both of these fundamental relations of responsibility, therefore, the student is definitely acting in his or her own right, and not through any intermediate group or agency. Such an arrangement should not be taken to mean that the individual students are in no way connected with some outside enterprise. In most cases

they usually are either trade-union personnel, business men, governmental or social workers. And very frequently they will be either advised, subsidized, or both in this work by their professional principals. The point to be emphasized here, though, is the fact that such modifications in the students' status are background elements only, and so do not directly affect the individual's program selection. For all practical purposes, the students determine this for themselves.

From this organic relationship of independence existing between school and student, several distinctive functional consequences logically follow. For one thing, the independent labor school can and usually does adopt a policy of non-partisanship towards both labor and management. It, therefore, formulates an academic program aimed at developing all sides of the industrial question, and geared to the needs of all parties in the industrial order. This involves, fundamentally, a study of the rights of labor, management, and the general public; together with a consideration of the various techniques devised or devisable for protecting and promoting these objectives. In the achievement of these ends, representatives of the three main parties in interest lend a helping hand. Such assistance customarily takes the form of expert advice as to subjects and procedures, service of officials on the faculty staffs and financial or material support of different kinds.

In the category of student affairs, the independent labor school is likewise distinguished by a tri-partite division of interests. Business men, laborers and members of the public they both serve attend classes together, discuss industrial problems together, and participate in social and recreational functions together. The ensuing relationships produce an effective laboratory for the study of real industrial relations at first hand; and the experiments which are carried on there offer excellent opportunities for sample testing the effectiveness of certain conclusions reached in connection with the theoretical studies. This is workers' education certainly, but it is also management education and consumers' education as well.

With regard to the technical side of this picture, it can be said that these training centers are generally located in some economically neutral spot, such as, a school building, a public hall or office building, or a church hall or hotel room. Classes are held in the evening, in most instances, sometime between the hours of 7-30 and 10-30 p.m. Instruction is offered in a rather varied list of subjects, and this may be taken either for credit, that is, as part of a requirement for a certificate, or merely for personal information, audit as the procedure is termed. The courses may run for a single term, half an academic year, or they may extend through the entire school year of two terms. Each term is about eight to ten weeks' duration. As was indirectly mentioned before, there will frequently be a standard program, organized on the basis of so many credits earned in a specified number of years or terms. Upon the successful completion of this period, a certificate of merit is customarily given.

The associated or departmental labor school is a component part of a larger academic institution. It usually constitutes a subdivision of a college or university. Such a position requires that the school possess only a limited internal control over its curricula of studies and its faculty personnel. Final authority in such matters rests with the central administrative officials. This organizational arrangement should not be taken to mean that the school's own administrative staff is bereft of a voice in the formulation of policy, or deprived of a leading role in the implementation of the same. Practically speaking, the area of sway

of their influence is quite extensive. To all outward intents and purposes, they are the true directors of the institution. Close investigation, however, will prove them to be only executive directors or managers, with a jurisdiction that is subordinated to that held by a remote but higher ranking directorate. As would be expected, several distinctive operational features stem form this root structure.

One of these is the specialization tendency. Being an integral part of a collection of educational units, it is only natural that it would have a very definite functional area marked out as its responsibility. This zone will be very sharply limited by the services afforded by the sister units. Now American colleges and universities, practically from the time of their inception, have included departments and schools of business management or administration in their organizational framework. These aim at developing new recruits for the managerial side of industry. When, therefore, contemporary trends in industrial affairs demonstrated a need for professional educational assistance to workers, these institutions, for the most part at least, viewed the situation as one requiring the establishment of separate and distinct academic divisions for this purpose. This produced the special School for Workers on many college and university campuses, with a program devoted to the problems, principles, and techniques of the labor side of industry. Both the faculty and the course content thereof were circumscribed in their outlook, practically speaking at least, by the objectives and the methods of the trade union movement. Thus was a situation brought about in which the members of the two sides of the industrial order are instructed and trained largely in isolation from one another.

This pattern of development was heavily influenced by the Americain labor movement. Since the interest which the institutions of higher learning took in workers' education was initiated largely through the promotional efforts of organized labor, it was to be expected that the latter would have a strong voice in the work of designing the structure and formulating the operational policy thereof. And in view of what has previously been said regarding the labor movement's general spirit of independence, it would seem to be inevitable that this educational policy should adhere unreservedly to the principle of self-determination.

All of the foregoing instances of specialization, namely administration and curricula, in the associated labor schools are methodological in nature. They are means to some end outside themselves. And, since the means for the achievement of any end must be directly proportioned to the scope of that end, it necessarily follows that the objective to which these educational methods are directed are likewise very clearly defined and definitely limited. Consequently, though it is nowise exclusive so, in the great majority of cases the names of union members alone are found on the roles of these Workers' School classes. Non-union people may be admitted, and occasionally are found attending sessions there. But when doing so, these "outsiders" are treated, for the most part, just like any other organized worker, irrespective of what their normal status in the social order may be. They may participate fully in the group activities, but such events are always selected and presented in a manner that is consonant with the unions needs of the time. In short, this means that, while the industrial picture may be presented as a whole, the labor elements in it receive an added emphasis and get the major share of attention. Such a discriminatory approach is a biased one, of course, but it is certainly not dishonest. After all, these particular schools were publicly and primarily established by and for the workers,

and were therefore intended to be composed mainly of them. It would be more than strange then, if they did not adopt such a weighted mode of procedure.

Besides the foregoing fundamental distinctions between the independent and the associated types of labor school, there are differences in the area of techniques as well. Due to its integral relationship with a larger institution, and the ensuing right of participation in a common fund of educational resources, the associated school is mostly always in a position to offer a greater variety of services than its independent counterpart, and to present a more outstanding array of pedagogical talent for the dispensing of the same. While it would be dangerous, if not actually difficult to point out specific examples of the latter fact, several clear-cut instances of the former are easily discernible.

In the matter of running courses during the regular academic year, the associated school will ordinarily operate in the same fashion as the independent school, but with these further advantages. It will normally make more courses available than the latter, either by having more instructors on hand at each meeting, or by holding a larger number of meetings in a given period of time. Moreover, and this is probably an innovation of much higher importance, the associated school will frequently, if not usually, put the ordinary basic labor courses within reach of a normally unreachable segment of workers, through the instrumentality of an extension program. Under this arrangement, instructors are sent out from the school to sections somewhat remote from the educational center, and classes are held at a local union's headquarters, or at a common meeting place to which several unions may send students. The order of operations there is essentially the same as that pursued on the school's home grounds. Meetings are held in the evening each week, for a certain number of weeks, with a definite period of weeks comprising a full year of work. Certificates of merit are normally awarded for successfully completing a required amount of classwork.

Another innovation in workers' education, and a relatively recent one at that, which has been inaugurated by the associated labor schools, is the summer institute. Under this plan, unions send their members to a university for one or two weeks during the summer months. There the students live, work, and play together in close association. They not only have the opportunity of studying the methods and the values of group undertakings, but enjoy the added advantage of actually experiencing them as well. Theory and practice are closely integrated, and the workers learn by doing quite as well as by listening. The serious work carried on there is carefully tempered with an adequate amount of recreation, and with such happy results that the whole undertaking is as much a vacational as a vocational period for those attending. This mode of workers' education gives promise of becoming perhaps the most widely accepted one in the United States in the near future.

To complete this brief outline of the contributions made by the schools to the workers' education movement in the United States, it seems necessary to remark upon one basic feature which characterizes the training procedure followed by both kinds of schools described here. It is the great stress that is placed on group discussion, with student participation in, and contribution to the same being preferred and recommended over lectures by instructors. Only in the more involved background subjects do the latter really dominate the class-room scene. This routine is, of course, but another aspect of the spirit of independence which forms the

backbone of American trade-unionism. Group organization and collective action there must be, but for these important social qualities to be strong and hardy, it is recognized that they must be cultivated and nurtured in the soil of intelligent and active individuals.

ROLE OF NUTRITION IN HUMAN WELL-BEING*

(A Study of South Indian Diets)

By (Mrs) Rajammal P. Devadas

"Nutrition is basic to health and health is one of the fundamental rights of every human being". So says Mrs. Devadas and makes, in the following article, an analytical study of the South Indian diets, bringing out their calorific deficiences. She also suggests methods of making up those deficiencies.

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Importance of Nutrition.—The role of nutrition in human welfare is being increasingly recognised and appreciated at the present time. The Technical Commission of the League of Nations in 1937 wrote, " If Governments can achieve for their people adequate levels of food consumption, further progress can be made in increasing the quantity and raising the quality of human life..... Improved health will certainly be accompanied by increased efficiency and a rise in material welfare and happiness..... If the hope which nutrition holds out can be transformed into a reality, entirely new perspectives will be opened for the improvement of human welfare..... The malnutrition which exists in all countries is at once a challenge and an opportunity; a challenge to men's consciences and an opportunity to eradicate a social evil by methods which will increase economic prosperity".[1]

Following the efforts of the League of Nations, the fore-runners of the Food and Agriculture Organization of the United Nations made the following statement in 1943: "Nutrition becomes a primary concern of Governments everywhere".[2] This statement is far-reaching in its meaning. Improved nutrition enhances the individual's welfare and thus contributes towards the total health of the nation. "Improved health will alter the economic and political power of nations now impoverished and half-starved." The World Health Organization joined hands with the F.A.O. in 1946, for securing the "highest attainable standard of health" for all the peoples of the world through the improvement of nutrition.[3] The National Planning Commission in its Draft Five Year Plan has also recognized that "adequate food and nutrition" are essential requirements in the attainment of community welfare and National Health.[4]

Nutrition is basic to health, and health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition. Of all the environmental factors, Nutrition is most potent in affecting the physical, mental and social growth of a child. Nutritoin conditions our happiness and, therefore, food becomes the prime necessity of life. There must be adequate food for all the people, adequate in terms of quantity and quality. The needs of the people should be carefully studied with reference to their activities and modes of life. In order to plan adequate and satisfactory diets for our people, the fundamentals of dietetic principles should be clearly understood.

Chief Constituents of Food.—All the foods we eat can be classified as: (1) grain or cereal products (2) pulses (3) vegetables and fruits (4) milk and milk products (5) meats, fish, poultry and eggs (6) fats and sugar, sweets and condiments. These foods supply

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proteins, fats, carbohydrates, vitamins mineral salts, roughage and water in the diets.

Proteins furnish the building materials for the body, for the repair of tissues and give energy. They maintain life. Most foodstuffs contain proteins in varying quantities. Animal foods supply first class proteins. Among the vegetable foods, pulses, nuts and some cereals are rich in proteins.

Fats are of value to the body as carriers of vitamins A, D, E & K, as fuels and as lubricants. Carbohydrates include starches and sugars. They are the body's chief source of energy. They are supplied abundantly by grain products and root vegetables. When carbohydrates are present in excessive amounts as in the South Indian rice diets, the diet becomes ill-balanced.

All these three food factors supply energy to the body. Energy is needed for the vital functions of the body, such as, respiration, circulation, excretion, as well as for the bodily activities, such as, muscular exercise and movements. Energy requirements are estimated in terms of heat units, the calories. In nutrition a calorie is the amount of heat required to raise the temperature of 1 Kg. water by 1°C. It has been estimated by experiments that proteins, fats and carbohydrates supply 4, 9 and 4 calories of heat per gram respectively. An allowance of 2400 calories per day is considered adequate for adults in ordinary daily life. Additional allowances should be made for work, for special conditions and for growth.

A large number of mineral salts present in the human body help in the development of bones, teeth and other tissues and in the maintenance of the proper composition of the body fluids. Calcium is found abundantly in milk, green leafy vegetables, ragi and egg yolk. Murungai Keerai is an excellent source of calcium. Iron is needed for the formation of haemoglobin of the blood and is supplied by foods like liver, egg yolk, green leafy vegetables and ragi.

The past two decades have witnessed many discoveries in the field of Vitamins. Vitamins are organic compounds present in minute amounts in fresh, natural foods, essential for health and well-being. Vitamin A is important for growth, health of eyes, skin and the respiratory tract. It is found in butter, ghee, milk, egg yolk, liver and fish livers. It is present as Carotene in the yellow and green vegetables and fruits. The B group of Vitamins regulate many activities in the body and are necessary for the maintenance of life, promotion of growth and the attainment of optimum health. In general, they are found in all whole cereals, legumes, yeast, leafy vegetables, ground-nuts and organs of animals. Vitamin C is present in fresh citrus fruits, tomatos, leafy vegetables and kidneys. It helps in the utilization of many food factors, such as, protein and is very necessary for growth. And Vitamin D prevents rickets and regulates Calcium utilization in the body.

Composition of the South Indian Diets.— There are numerous ways of information regarding the composition of diets in any part of a country. Statistics of agricultural productions and food imports give us a rough picture of the average food consumption but they are likely to conceal the wide variations in the food intakes in the different areas and in different social and economic groups. Diet surveys are therefore more useful and accurate.

W. R. Aykroyd, in his "Note on the Results of Diet Surveys in India, Burma and Ceylon" has given the intakes of various food groups in the different parts of India.[6] In his surveys, 10 to 30 families in an area were studied for 7-30 days through home visits and the foods ready to be consumed daily were weighed and recorded. Table I, an excerpt, from the above publication, gives information about the diet surveys in Madras.

TABLE I

Results of Diet Surveys in Madras State

District	Chingleput	Trichinopoly		Nilgiris	Madras city	Godavari		Madras City	
Locality		Mayanur			Saidapet			Saidapet	Mambalam
Urban or Rural	Rural	Rural	Rural	Rural	Urban	Rural	Rural	Urban	Semi-urban
Number of Families	12	32	25	16	14	34	16	25	20
Number of Persons	—	274	129	90	83	—	—	144	110
Number of days of survey	20	20	15-20	7	18-20	10	—	20	20
Time	January 1937	July 1937	Feb. 1937	June 1939	Jan. 1939	Jan. 1941	Sept. 1941	July 1939	
Economic Status	Cultivators Labourers	Small cultivators		Tea plantation Labourers	Weavers	Poor agriculturists		Weavers	Labourers
Source of Survey	W.R. Aykroyd and B. G. Krishnan Indian Journal of Medical Research (I. J. M. R.) Vols. 24 & 25			B. G. Krishnan I. J. M. R. Vol. 26	W. R. Aykroyd & B. G. Krishnan I. J. M. R. Vol. 26 and Vol. 29-				Coonoor Research Unpublished.

Food Stuffs : **Ounces per Consumption Unit per Day**

	Chingleput	Mayanur		Nilgiris	Saidapet	Godavari		Saidapet	Mambalam
Rice ...	15·00	10·00	14·00	18·00	14·20	21·50	21·90	15·50	16·30
Wheat ...	—	—	—	—	—	—	—	—	—
Millets ...	2·00	9·00	6·00	—	—	—	—	—	—
Other Cereals	—	—	—	—	—	—	—	—	—
Pulses ...	0·50	1·40	1·40	1·00	0·90	0·70	0·80	1·25	0·75
Leafy Vegetables ...	0·30	0·30	0·30	—	0·60	0·10	0·40	1·00	0·20
Non-leafy Vegetables ...	0·90	0·50	3·40	3·00	2·80	3·30	2·90	2·50	1·80
Fruits ...	—	—	—	0·10	0·10	—	—	—	—
Ghee ...	—	—	—	—	—	—	—	—	—
Vegetable Oils ...	0·10	0·60	0·50	0·40	0·50	0·90	1·20	0·50	—
Milk & buttermilk...	—	—	—	—	1·10	9·60	5·20	3·70	—
Meat, fish & eggs....	0·80	0·10	0·20	—	1·50	0·40	0·10	0·70	0·90
Sugar & Jaggery ...	—	—	—	—	—	0·20	0·10	—	—

These data do not reflect the present menacing food situation which has led to the creation of Central and State Food Departments and to the enforcement of stringent measures of rationing and food control. The serious food shortage has brought many changes in our dietary habits and they should be adequately studied.

From the above surveys, we get the following general picture of the food intakes of the poor rice eater in South India.

Average intake in ounces per consumption unit per day

Rice (milled, raw, or parboiled)		15·00
Milk	...	1·00
Pulses	...	1·00
Non-leafy vegetables	...	1·50
Leafy vegetables	...	0·25
Oil	...	0·50

Nutritional Deficiencies of South Indian Diets.—The above figures, when analysed for their nutrients, show that the diet of the South Indian falls short of the normal requirements in every respect and is ill-balanced, as shown in the table below:—

TABLE II

Nutrients.	Actual Diet.	Recommended Amounts. *
Calories ...	gm. 1750	2400
Proteins ...	gm. 38	82 gm.
Fats ...	gm. 19	50–60 gm.
Calcium ...	gm. 0·16	1·00 gm.
Iron ...	mg. 9	20–30 mg.
Vitamin A ...	I.U. 500	3000–4000 I.U.
Vitamin B ...	mg. 0·50	1–2 mg.
Vitamin C ...	mg. 15·00	50 mg.

The majority of the families surveyed belong to the poorer classes. Their daily diet is built around rice except in Travancore where tapioca is included and in certain other areas, where some other millet, like ragi, cholam or cambu is also taken. A considerable number of rice eaters are generally impoverished and live in a suboptimal state of nutrition. Along with their poverty, illiteracy and ignorance present formidable obstacles to progress in Nutrition.

The general level of health among the rice eaters is very low as indicated by high mortality rates, short span of life, persistent prevalence of disease, poor physical development and low working capacity. Among the many causes of ill health, malnutrition is prominent.[7, 8]

McCarrison demonstrated in 1927 through his well-known experiments on rats that the Madrasi diet was the poorest in India because of the predominance of rice in it.[9] Aykroyd and Krishnan have shown through many studies in Coonoor during 1936-1941 that the major deficiencies of the poor South Indian diets were Calcium, Vitamin A and riboflavin.[10, 12] Aykroyd commented:

"The poor rice diet is in fact ill-balanced and does not contain enough of non-cereal foods rich in the nutrients needed for health. The intake of total protein is reasonably adequate, but that of fat and animal protein is very low. There is an insufficient supply of Vitamin A, Carotene and various factors of the Vitamin B Complex."[6] These comments were true even in 1947, 48 and 1949.[13, 14]

In the Coonoor Nutrition Research Laboratories and in the Women's Christian College Nutrition Laboratories, it was found that young rats on the "poor South Indian Rice Diet" showed very poor

* Recommended by the Nutrition Advisory Committee of the Indian Research Fund Association, November 1944. (5)

growth. Milk and egg yolk, green leafy vegetables and ragi produced striking improvements on their growth when added to the poor rice diet. These foods, therefore, supplied certain important factors essential for growth, lacking in the rice diet. [15, 18] The experiments in the Women's Christian College also showed that when purified proteins or fats were added as supplements to the rice diets, growth was stimulated at first but subsequently led to disastrous effects and even death. These results, therefore, indicated that a factor or factors other than the protein, fat or Calcium in the milk, egg yolk or leafy vegetables, were lacking in the rice diet and were essential for life and growth. There were mixed deficiencies in the diet and consequently, making up for one deficiency, such as, protein or fat, seemed to unmask or activate other deficiencies.

Experiments of Devadas[19] at the Ohio State University, U.S.A., during the years 1947-1950, further revealed that the poor rice diet* of South India was primarily deficient in Vitamin A, riboflavin and some other members of Vitamin B complex and some unidentified factors present in egg yolk. Vitamin C was also lacking in the diet. In the absence of adequate levels of these Vitamins, additions of proteins and fats were actually harmful since they seemed to accentuate the imbalances in the multi-deficient diet. But when these Vitamins were supplied in adequate amounts proteins and fats became useful for growth and tissue repair. The quantitative aspects of interrelationships need further investigation.

The fact that a large number of poorer people in South India survive and are even energetic in their work, can probably be explained by the fact that their diet is deficient in many factors rather than in any one specific factor and as a result, they do not develop any one deficiency but simply do not grow to a full stature or live maximum span of life.

Middle Class Diets in South India.—The middle class diets differ from those of the poorer classes, chiefly in containing more vegetables, fruits and milk products and a smaller amount of cereals. Non-vegetarian middle class diets include a relatively large quantity of fish, meat and eggs. The most important nutritional difference between the diets of the well-to-do and the poor throughout India is probably the greater amount of milk products included in the former. As income rises, there is a considerable rise in the consumption of non-cereal foods, chiefly in the protective foods like milk, vegetables and fruits. This means that increase in income leads to an improvement in diet in the right direction. Any increase in the material prosperity of the country—a rise in the national income per capita—will *per se* tend to raise the nutritional levels and improve the health of the population. But education is necessary to

* The Poor Rice Diet chosen for the investigation was of the following percentage composition:

Parboiled milled rice	...	89·0
Dhal (peas)	...	3·0
Vegetables (Brinjal and plantain)		6·0
Gingelly oil	...	0·5
Mutton	...	0·5
Salts	...	1·0
Total...		100·0

guide the trends of such changes. The Planning Commission has recognized this and given agriculture important consideration.

Suggestions for Improving the South Indian Diets.—An adequate diet must furnish all the necessary factors for life, growth, body activities and maintenance of optimum health. Abundant health is not possible on a deficient diet. As the Hon'ble Rajkumari Amrit Kaur has pointed out, "There can be no health without adequate food and adequate education."[20]

Since rice forms the bulk of many dietaries in South India, the treatment given to rice in its preparation assumes great importance. Parboiling and hand pounding ensure the maximum retention of the nutrients in rice. Rice should be washed and cooked in the minimum amount of water. The cooking water should be used in the dietaries. Enrichment of rice with vitamins and Calcium along the lines of enrichment of cereals in the West is under the consideration of the Government. The Mysore Food Technological Institute is trying to evolve a synthetic rice, claimed to be of superior nutritive value.[23], [24]

The deficiencies of Vitamin A and riboflavin can be alleviated by widespread use of milk, eggs, liver, fish and similar potent animal foods by non-vegetarians and by the use of milk and leafy green and yellow vegetables by the vegetarians. Many of these items are consumed in too small amounts because they are expensive and beyond the means of most people. However, the green leafy vegetables are rich store houses of many nutrients. They are relatively inexpensive and available all through the year. The importance of kitchen gardens, therefore, need no futher emphasis. The many herbs, and mixed leaves like coriander leaves, curry leaves, amaranthus, ponnangani, drumstick leaves, Gogu and Agathi are excellent supplements to the rice diets. Some of them even need no cultivation. Although fruits are almost luxuries for many of us, we will do well to include in our diets the cheaply available seasonal fruits wherever possible. Much research needs to be done in estimating the vitamin contents of the wide variety of edible green leaves avaible in our country.

Many of our foods are unparallelled in their Vitamin C content; Amla or Nellikai has the highest amount of Vitamin C.

The possibility of food yeast as a source of the B Vitamins should be carefully studied. Fortification of inexpensive protein foods with vitamins, synthetic preparations of milk and other foods, partial substitution of rice with foods of higher nutritive value like ragi, wheat, sweet potato and pulses, all offer means for improvements. While being enthusiastic about enriching our foods, we should not overlook the dangers in using highly refined foods like white sugar, refined salt, maida or white flour, polished rice and hydrogenated vegetable oil products. The crude natural foods from which the above are obtained supply us with essential nutrients. They are removed in the process of refining.

Any improvement on the nutritional standards of the South Indian people is dependent on improvement in the extent and efficiency of agriculture. Improvements in dairy, husbandry and technology will lead to increased milk production and consumption. This should be the goal of the Government and all those who are concerned with raising the nutritional level of the nation.

The vast marine resources of the coastal South India should be tapped for edible fishes. Poultry farming can be developed scientifically to subsidise the rural income, as well as to enhance the nutritional level of the villagers. In implementing all these

suggestions, the role of Nutrition-education and extension services has to be borne in mind.

Conclusion.—A complete solution to the rice problem is dependent upon the adjustment of many difficult social, economic and agricultural conditions which may take many years to accomplish. Effective measures for the improvement of dietaries require education of the masses in agricultural production, food technology, food habits and cookery.

Our new knowledge of the potentialities of nutrition for the improvement of life brings a new order of opportunity and responsibility to all who have to do with any link in the chain of human well-being. As Galsworthy pointed out in 1920, we should make health rather than wealth our ideal, and make that ideal effective by education from infancy upwards. This ideal should mean a more abundant life and a fuller, fairer and more equitable opportunity for all. And in the light of today's knowledge of the influence of nutrition upon development, health and efficiency, it is clear that a fair opportunity for all must mean, more than other things, *adequate nutrition* for each. Whatever might be the present obstacles against the achievement of this ideal, the development of sound nutritional knowledge in the production and distribution of food supply is bound to effect improvement over the existing conditions.

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SOCIAL SECURITY FOR SEAMEN IN INDIA

By R. N. Saksena

India has a great maritime history; and even today a large number of Indians work in her maritime trade and industry. While steps are taken to provide social security to other industrial workers, nothing is done for these seamen. Describing the conditions of employment and work of seamen in India in the following article, Dr. Saksena says that they should be assured at least against unemployment and makes certain valuable suggestions therefor.

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India is immensely rich in her maritime traditions. She had an excellent record of shipping in the past when her ships used to sail on distant seas. Centuries before the Atlantic was crossed by Columbus and the Pacific by Magellan, the Indian Ocean was the centre and highway of international commercial traffic. In those ancient days, it was the Indian shipping which established and maintained contacts between the Peninsula of India and the ports in the Persian Gulf, Red Sea and Africa on the one side and Ceylon, Burma, Malaya, Indonesia, China and the whole of South East Asia on the other. Today, on the Indian Coast Indian shipping is insignificant and she has no status in international shipping.

Nevertheless she even now serves as a great source for the recruitment of seamen. Calcutta and Bombay are the two main recruiting ports of seamen in India. The port of Calcutta depends for its supply on the maritime districts of Noakhali, Berisal, Chittagong and Sylhet; while the port of Bombay gets supply from the districts of Surat, Daman, Diu and Konkan. Bombay has also the advantage of drawing its saloon crew from among the Goanese. But, as a recruiting centre, Calcutta is of greater importance. On an average 65,000 seamen are employed annually, but the supply far exceeds the demand. At the first meeting of Indian Maritime Advisory Committee, it was stated that the average number of seamen engaged in India was anywhere from 250,000 to 300,000. Thus one can conclude that at least two out of every three seamen are unemployed. Professor Adarkar, in his report on Social Insurance for seamen (1946), has calculated that against the demand for 50,000 seamen at present, there is a supply reservoir of 300,000 seafarers holding Discharge Certificates. In the case of higher ratings, the waiting period is even higher. The indiscriminate issue of First Continuous Discharge Certificates, in the face of falling employment of Indian seamen, has increased the number of seamen waiting for engagement in the Indian ports beyond all proportions. The shipping authorities have now realised the dangers of indiscriminate issue of *nullies*. In 1925, an attempt was made by Capt. Darvell, Shipping Master, Calcutta, to reduce the issue of Continuous Discharge Certificates; but during the World War II, inspite of a decrease in the employment of seamen due to a shrinkage of foreign trade, as many as 6,289 new certificates were issued. This has further complicated the situation. Hence, more drastic measures are needed. The issue of First Continuous Discharge Certificates should be stopped altogether, so long as the supply of seamen is not brought within the reasonable limits of demand. There can be further reduction in the numbers if the names of all those seamen who have been out of employment for more than three years are excluded from the Register of the Bureau. This period can be steadily reduced year after year. The Royal Commission on Labour suggested the possibility of reducing this period by six months each year, until it reached 18 months. But it might involve many hardships for

seamen, especially for those who have been out of employment for a long time, not through any fault of their own. Therefore, this scheme of exclusion can only be introduced at a later stage when the available number of seamen has been brought within reasonable limits by stopping the issue of First Continuous Discharge Certificates and thus allowing the old to retire and giving a chance to fresh blood. A logical corollary is that no Continuous Discharge Certificates should be renewed after the applicant has attained the prescribed age limit.

But the reduction in the number of the Continuous Discharge Certificates issued alone will not solve the problem of unemployment among seamen. Means have to be devised for absorbing superfluous seamen in some other industry or industries, where their energies might be profitably utilised. Fishing, especially in the estuary and on the coast, naturally presents itself as an allied occupation, where seamen can use their talents and also earn a decent living. But, unfortunately, this industry has not developed in India to the fullest possible extent and on scientific lines, though the prospects of development of maritime and estuarine fisheries are attractive. In Bengal, where the inhabitants are fond of fish, where the general conditions are not very favourable for the production of animal foods and where the water surface, inland, estuarine or marine, is more than sufficient to produce an ample and varied fish-diet for every one at a reasonable cost, fishing as an alternative occupation is clearly indicated. As a result of extensive enquiries made into coastal and estuarine fisheries in the Bay of Bengal by Colonel Alcock, I.M.S., Surgeon Naturalist to the Indian Marine Survey, it was revealed that ".... the fisheries of the Bay of Bengal are of inestimable value, and that whoever has enterprise enough to take them up, and strength of purpose and length of means to stick to them, will reap a manifold return. The only special question for consideration is that of carriage from sea to market." In this connection, it is interesting to mention that in 1906 the Government of Bengal requisitioned the services of Sir K. G. Gupta to enquire into Bengal fisheries. As a result of his recommendations, the Government of Bengal chartered the trawler 'Golden Crown', and Dr. Jenkins of the Lancashire Sea Fisheries was engaged as a Special Officer to direct the survey. These investigations resulted in proving that trawling could be carried out successfully right through the monsoon. Many fishing grounds as well as types of fish, were located. Dr. Jenkins' conclusion was that estuarine and marine fisheries offered a profitable return on capital invested in a properly organised scheme. Sir Regiland Spence and Mr. S. H. Prater of the Bombay Natural History Society have similarly surveyed the fish-supply of the West Coast, especially in the neighbourhood of Bombay, and have suggested that the fishing industry has better chances, if private effort is re-inforced by continuous organised research supported by Government. Hence, one of the solutions of the unemployment problems of Indian Seamen is closely linked with the exploitation of the fishing grounds in the estuaries and on the coast by trawlers and motor fishing boats and the development of a supplementary oil industry.

The working conditions of seamen are peculiar to the trade. The ship is not only seamen's working place; it is also his place of shelter and relaxation. While on deep sea, he is like a prisoner confined to his ship. Such a position has been universally recognised in law which confers certain rights on seamen for maintenance, treatment, wages, etc., in case of employment injury, sickness or death. This has rendered shipowners liable to meet these contingencies whenever they occur on board the ships. But the ship-owner's liability is restricted to

injury not caused wilfully by the seamen and, in case of sickness, to those diseases which are not due to their wilful misconduct.

While the incidence of accidents on board the ships is fairly high, the provisions for compensation are poor. The Indian Workmen's Compensation Act at present applies only to seamen who are engaged on sea-going ships, registered under the Indian Merchant Shipping Act. But the majority of Indian seamen are engaged on board the ships of foreign registry. Hence, the majority of Indian seamen have no legal claim to compensation under the Indian Act. But under the Articles of Agreement, the non-Indian employers bind themselves to pay compensation according to the provisions of the Indian Workmen's Compensation Act. The Act, however, fails to provide adequate safeguard to seamen in case the ship-owners adopt dilatory tactics or show unwillingness to pay compensation. The loophole is provided in Section 15(2) of the Indian Workmen's Compensation Act, which runs as follows:—

"In the case of the death of a master or seamen the claim shall be made within six months after the news of the death has been received by the claimant, or, where the ship has been or is deemed to have been lost with all hands, within eighteen months of the date on which it was or deemed to have been lost."

It is quite probable, and in a number of cases it does happen, that the ignorant claimant, as the Indian seaman is, may not be able to institute his claim within these prescribed limits, and by the time he gets the necessary legal assistance the cause of action becomes time-barred.

Similarly, Section 15(4) of the Workmen's Compensation Act provides that "no half-monthly payment shall be payable in respect of the period during which the owner of the ship is, under any law in force for the time being.....in India relating to Merchant Shipping, liable to defray the expenses of maintenance of the injured master or seamen." In other words, so long as the injured master or seaman is on board a ship, this sub-section does not harm him because his right to wages continues even during the period of disablement. But when he is put on shore in a foreign country for necessary treatment, his right to wages ceases though the ship-owner still remains liable to defray the expenses of his treatment and maintenance. In the absence of sub-section (4) of Section 15 of the Workmen's Compensation Act, the injured seaman would have been entitled to half-monthly payments according to Schedule IV of the Act. The effect of this sub-section is to deprive the injured seaman of that right for the period intervening between his being put ashore in a foreign country and subsequent repatriation to a proper port of return.

The Merchant Shipping Act also provides another loop-hole in Section 89 in laying down that the ship-owner is liable to defray the expenses of medical care and maintenance only "if the master of, or a seaman or apprentice belonging to a ship, received any hurt or injury in the service of the ship." This is just an imitation of the law applicable to shore workers, ignoring the fact that a seaman is a twenty-four hour employee of the ship and any injury to him on board the ship should be regarded as one received in the service of the ship.

Further, in case of injury caused wilfully or through negligence, a seaman is even denied medical care at the expense of the ship-owner. This is hard, because the statutory provision for the loss of right to wages in the case of incapacity due to an injury wilfully caused is a sufficiently deterrent punishment to seamen against injuring themselves deliberately. The Workmen's

Compensation Act is also defective inasmuch as it does not provide for compensation in the case of occupational diseases for seamen, though seamen are continuously exposed to such risks.

The principle of paying compensation to the worker as an 'individual responsibility' is open to grave objection. All that the Workmen's Compensation Act does is only to confer certain legal rights to compensation on seamen or their dependants and to leave them to enforce those rights as best as they can, whether by agreement with the employer or through legal proceedings. In the consequent sustained series of conflicts in the Courts between seamen and their employers, the latter are undoubtedly in an advantageous position, partly on account of their superior resources in money, knowledge of their rights, professional skill and ability to wait. Thus, as Rolson has remarked, "the resources of the legal and medical professions are devoted to the ignoble and socially misguided purpose of resisting the payment of compensation to an injured workman or his dependants."

Similarly in the case of sickness, the Indian Merchant Shipping Act of 1923 provides for medical care of seamen on board ships at the expense of the ship-owners during the period of engagement. This liability terminates as soon as a seaman is discharged or repatriated to a proper port of return. Thus, the duration of assistance is limited to cure, but the withdrawal of the right to assistance at the ship-owner's expense on repatriation may, in many cases, fail to cover the risk of temporary incapacity even of short duration (e.g., the case of sickness occurring just before return to port of return and producing incapacity lasting several weeks or months), thus placing the seaman in an extremely difficult situation unless he is covered by a scheme of Sickness Insurance. There is another reason which makes the case for sickness insurance much stronger. In India, a seaman, whose services terminate before the date contemplated in his Agreement by reason of his being left behind on account of unfitness, loses his right to wages from the date the authorities sanction his disembarkation. Therefore, a comprehensive programme of social security measures, consisting of sickness, employment, injury and old age insurance for seafarers has to be undertaken at the earliest opportunity. The report on Social Insurance for Indian seaman by professor B. P. Adarkar and Dr. Laura Bodmer lays down a tentative scheme of unified sickness, employment, injury and old age insurance. We congratulate the authors of the report for their bold suggestions to provide Social Insurance benefits to seamen. But, at the same time, we have to admit that they do not provide full benefits to them. The report is not very clear on the point of family benefits. While the seamen are engaged on board the ships sailing on distant seas, the care of their dependants should be a charge upon the Insurance Fund, particularly with regard to sickness and maternity benefits. Maternity benefits for the wives of seamen, and in some cases for other near relatives, have been a compulsory benefit in Great Britain, the Irish Free State, Poland, Russia and an optional benefit in Italy, China and Norway.

The proposed Insurance Scheme, therefore, aims at conferring only limited benefits on seamen. We can fully appreciate the limitations under which the authors of the said scheme had to labour and reconcile the divergent interests. But, at the same time, we cannot expect the seamen to make even a little provision to meet the contingencies of life occasioned by death, old age, sickness, employment injury and unemployment, due to the inadequacy of their wages and the irregularity of their employment. Hence, social benefits in their case ought to be

absolute and unconditional. The nightmare of seamen in India is the spectre of unemployment which always stares them in their face. Professor Adarkar has himself estimated that, out of a supply reservoir of 300,000 seamen, the demand is only for 50,000 men. Thus 250,000 lives are being wasted in idleness, growing in despair and numbing in indifference. Behind these thousands are their families, making hopeless shift with want, losing their birth-right of healthy development, even wondering whether they should have been born and at times preferring death to this hopeless existence. Apart from these, there are thousands working on board the ships but never sure when they would sail again once they are discharged. To this if we add the systematic bribery and corruption that is so widely prevalent in the ports while recruiting seamen, the picture of misery is complete. Therefore, it is idle to talk of social benefits if we cannot strike at the root cause of all social evils, namely, unemployment, and the unscientific and corrupt system of recruitment. There should thus be no hesitation in adopting drastic measures, provided they help in reducing the number of the unemployed. In any scheme of Social Insurance, Unemployment Insurance should be the first item. To give priority to other social benefits is putting the cart before the horse.

Finally, the Report raises the question of reciprocity on the ground that the employment of seamen is of an international character and suggests bilateral treaties between the Government of India and the Government of those countries whose ships employ Indian labour. The question of reciprocity is important, because most of the Indian seamen are engaged on foreign going ships. In preference to reciprocity measures, it is more desirable that unilateral action by the Government of India on the basis of comprehensive social legislation is preferred. Now that India is a sovereign Republic, she should be able to insist that the foreign ship-owners, including those of Great Britain, must submit themselves to the social security laws of this country while engaging seamen in Indian ports, and the Articles of Agreement should be amended accordingly. Such contracts will not create any international complications and being 'valid contracts', can be enforced in any court of law, without raising the question of extra-territorial powers. The Indian Merchant Shipping Act will only have to provide that, if a foreign ship-owner employs an Indian seaman, he shall first enter into an Agreement to pay contributions under the Seamen's Insurance Act. etc., etc. The Government of India should thus make it obligatory for all lascars and their employers, whoever they may be, to agree to pay social insurance contributions, as prescribed by the Government, to the Indian fund directly.

Wage rates to the seafarers do not help us much in understanding the real economic condition of seamen. Mention has already been made of the intermittent nature of employment on board the ships. Every employed seaman is discharged at least once after six months in the case of Home Trade, and after twelve months in the case of Foreign Trade, and most of them are discharged more frequently. It is this factor, that first introduces into their engagements features that are different from engagement on shore. Then, after his discharge, a sailor usually goes to his village to spend some time with his family. Lastly, due to a large supply of seamen, far in excess of demand, a sailor is forced to stay at home or in the port for a considerable period before he can hope to go to sea again. The consequent temporary unemployment is a necessary corollary to his engagement. Hence, the nominal wages of a lascar in no way can be taken as indicative of his standard of living.

The Indian seaman lives in a vicious circle of low wages, low standard of living and low efficiency. An Indian seaman employed on a British ship gets only £.6,5s. as compared with the British seaman's basic wage of £20, rising to £24 after four years of efficient service.

This cheapness of Indian maritime labour is the main cause of their greater employment. The Indian seamen are paid low wages, their living accommodation on board the ship is less, and, in case of accident or death, their compensation, if any, is very low. The cheapness of the Indian maritime labour has been attributed to their inefficiency. But the causes of this low efficiency are complex, for which the seamen are not in every case to be blamed. No doubt the lower scale of wages which the *lascars* obtain as well as their poor dietary are in a large measure responsible for a lower level of physical efficiency. Lack of accommodation on board the ships, which is particularly small for Indian seamen, denies them any repose and relaxation after they have done their hard duty. If several seamen perforce have to take shelter in the night in narrow bunks at a place where ventilation may be inadequate, the night's rest does not completely relieve exhaustion. Greater efficiency may be expected if the same standard of living accommodation as adopted for European seamen be made available for the Indians. The recent maritime session of the International Labour Conference held at Seattle, U.S.A. (1946) has adopted a convention prescribing certain standards for seamen on board the ships, which ought to be ratified by the Government of India and included in the Indian Merchant Shipping Act. Efficiency is also likely to increase if the Indian seaman is relieved of his anxiety due to unemployment which is bound to follow the interval of work, however efficient he may have been in it. The wide prevalence of 'crimping' which does not assure him to enjoy the fruits of his labour, discourages satisfactory work. Lack of wholesome recreation, which might relieve seamen of their monotony of life and work, encourages drinking and the consumption of noxious drugs and discourages strenuous work. The unnatural life which they live in such ports as Bombay and Calcutta, herded in insanitary and congested *bustis* and *chawls*, spending their hours in gambling dens and brothels and waiting for an off-chance for employment can hardly be conducive to a state of mind and health in which they can put in their best.

A change in the conditions of work and of accommodation on board the ship and better housing on shore will bring the Indian lascars much nearer the level of the European seamen's efficiency than the ship-owners now admit. It is, therefore, essential that, in order to fully utilise the Indian maritime labour to the utmost advantage, all attempts must be made to improve their standard of living, which is only possible by paying them higher wages.

Ignorance and illiteracy of Indian seamen, which make them an easy victim of systematic exploitation, are also responsible for low wages and inefficiency. The very fact that, after the Great War (1914-18), nearly 93% of the sailors of the British Mercantile fleet, registered in Great Britain, were *lascars* clearly proves that at least a part of the prestige of the British Mercantile Fleet has been maintained by them, inspite of their cheapness and low efficiency. But this system is bound to have unfavourable effects on other seamen, since the ship-owner will always prefer to get seamen in the cheapest port, provided they are good enough. It is not very infrequent that foreign ships, when they enter Indian waters, completely change their crew. It is no longer a white crew, but manned by lascars under European super-

vision. Therefore, if Indian maritime labour is at all allowed to freely compete, which in reality is the case, with seamen of other countries at this level of wages and comfort, the market is sure to be swamped with cheap labour. It is a case of pulling quality by quantity.

It is gratifying to see that the recent Maritime Session of the International Labour Conference held at Seattle has adopted the following convention for fixing the minimum wage for all seamen, irrespective of race or nationality.

"The basic pay or wage for a calendar month of service of all able seamen, employed in a vessel to which this Convention applies, shall not be less than sixteen pounds in currency of the United Kingdom of Great Britain and Northern Ireland or sixty-four dollars in currency of the United States of America or the equivalent thereof in other currency" (Article 5). But an exception to this Convention was made by the Conference. The Conference agreed by a majority that when certain Asian, African or other seafarers were employed, the size of the crew had to be increased. It, therefore, included the following provision in the Convention:—

"1. In the case of ships in which are employed such groups of ratings as necessitate the employment of larger groups of ratings than would otherwise be employed, the minimum basic pay or wages of an able seaman shall be an amount fixed as the adjusted equivalent of the minimum basic pay or wages stipulated in the preceding article.

2. The adjusted equivalent shall be fixed in accordance with the principle of equal pay for equal work and due allowance shall be made for:

(a) the extra number of ratings of such groups who are employed; and

(*b*) any increase or decrease in cost to the ship-owners consequent on the employment of such groups of ratings.

3. The adjusted equivalent shall be determined by collective agreement between the organisations of ship-owners and seafarers concerned or, failing such agreement and subject to both countries concerned having ratified the Convention, by the competent authority of the territory of the group of seafarers concerned" (Article 6).

This Convention still awaits ratification by the Government of India.

Last, it may be mentioned that frequently a charge has been levied against Indian seamen that, since they are agriculturists first, they have a tendency to form themselves into groups on the basis of their local residence or even on communal basis and that they invariably return to their homes after the voyage is over, which explains their comparatively long periods of voluntary unemployment. It also stands as an argument against doing away with the system of recruiting lower ratings through the *serangs*. It is a fact that after reaching home seamen are reluctant to come back to sea, but it is not always because they are agriculturists. The immediate, and a more plausible, reason is that there is no housing accommodation provided for them either by the employer or the Government. The seamen who come to the ports from their distant villages or those who after their discharge want to stay in the city for re-employment invariably live in the boarding houses or *latties* owned and managed by private individuals. The only space available to a seaman is for his wooden box, which is at once his bed, table and chair. Thus to return to the bosom of his family after a strenuous voyage and the sordid life in a boarding house is a return to normal and healthy living conditions. Naturally, after reaching his village, he hesitates to return to sea life which now

appears to him as an ordeal. Therefore, if his conditions of employment and housing were improved, there is every likelihood that his period of stay at home, after serving for some time at sea, may be considerably reduced.

As regards the tendency of seamen to form themselves into groups, it is not so pronounced, as has been often emphasised by ship-owners and even the Government. In Bombay, the Peninsular and Oriental Steam Navigation Co., are maintaining a regular register of *lascar* seamen and insist on the *serangs* selecting their crews from among those whose names are entered in the register, irrespective of caste, creed or residence. Probably, the impression that the *serangs* formed a group arose from the fact that in the absence of any accommodation provided for seamen either by the ship-owners or the State, the only way to live cheaply for residents of the same village was to "club" together. Since they were living together, they could as well find out a *serang* to lead them. But to say that they would refuse to work, if not allowed to proceed on voyage in a group under a particular *serang*, cannot easily be taken for granted, specially when at any time not more than one out of five seamen can hope to get employment. The establishment of a State Recruitment Bureau in the ports will go a long way in solving the problem.

T. B. SOCIAL WORKERS—THEIR FUNCTIONS AND TRAINING

By (Miss) G. R. Banerjee

A patient is not a mere specimen presenting a pathological lung condition but a human being with a personality, reacting to his environment. Holding this view, Dr. Banerjee, in the following article, develops the idea that a trained Social Worker in a T. B. Hospital can help in properly planning the treatment of a tuberculous patient, in the light of his social and economic conditions.

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The great progress of medical science in recent decades has forged new weapons for curing and preventing disease, particularly those of communicable nature. When bacteriology revealed that there are external, biological causes of diseases, physicians were often inclined to overlook the social, economic and individual factors which were as much responsible for diseases, with the result that there arose a tendency to study only the disease and how it affected the heart or lungs rather than the whole patient as a *Person*.

For a long time, the medical profession in India regarded tuberculosis as an isolated medical problem. It was only very recently that physicians started looking at it in its total social, economic and to some extent psychological background. Consequently, it is becoming obvious that the most expert care aided by new discoveries in medical science and technique of control may be of little avail if social, economic and emotional factors involved in the disease are ignored. Hence, there has been of late a slow move towards studying the patient, not as a specimen presenting a pathological lung condition but as a human being with a distinct personality, reacting in its social, emotional and somatic aspects.

With increasing specialisation in the medical field, there is a drift away from the family physician who has been generally familiar with the patient as a person. He knew the personality and the home background of his patient and, therefore, could see how these affected his diseased condition. As more hospitals and sanatoria are established today to give sound medical aid to the tuberculous, the medical profession has to deal with patients away from their relatives and home environment. This separation itself may accentuate the emotional problems of patients, and also prevent the physician from knowing his patient as a total person. Therefore, the doctor, who has a vast amount of work in the field of his specialisation, is obliged to delegate certain aspects of his patients' problems to some other individual who is specially trained to handle them. This means a division of responsibility between the doctor and the medical social worker, with their respective concentration upon the medical and psycho-social aspects of illness.

Functions of the Social Worker.—The functions of the social worker in a hospital or sanatorium are multifarious. Generally the value of the social worker is recognised for her ability to acquire financial aid for the patient, because she keeps in close touch with such community resources as trusts and charities of which neither the doctor nor the patient may be aware.

Apart from securing financial aid for the patient and his family when necessary, the social worker renders also other services to them. She helps the patient to accept his diagnosis and medical recommendations and sees to it that there are no obstacles in carrying them out. If there are domestic complications in the way of his treatment, the social worker deals with them. In this connection, it is essential to remember that

the needs of a tuberculous patient cannot be completely separated from those of his family; he cannot be expected to recover in a hospital or sanatorium if the needs of his dependants are not met adequately. So, apart from helping the patient to adjust himself to the requirements of the treatment of his illness, the social worker also helps the family to adapt itself to the new situation. By working with the patient and his family, the social worker lessens the patients' anxieties and enables him to complete his medical treatment without 'signing out' against medical advice.

Problem of After-Care.—Serious and difficult as are the problems of the person affected with tuberculosis, there is the later and still greater problem of 'after-care'. What is to be done with the patient who has reached a stage when his disease is arrested. So long as he was in the hospital or sanatorium, it was comparatively easy to follow the prescribed regimen. On his return home, he may find himself a man apart if he continues to live as he lived in an institution. He has to adapt himself to the family and the latter to him. The social worker has to follow up a discharge case very carefully. She has to see that the patient in his attempt to adjust himself to his world does not over-exert leading to reactivating of the disease. Though tuberculosis is a recurrent disease, every attempt needs to be made in the direction of allaying the anxiety of the discharged patient for whom the danger and the fear of a return of the disease hangs like the sword of Damocles and affects his personality. Besides, his ability to support himself and his family must be restored as physical restoration alone is not the end of medical treatment. Since illness gives the patient a special position in society, the cure is not complete before the patient has been readjusted socially and enabled either to resume his old position or become reconciled to the new one. Therefore, the social worker very often has to assist a dischargee in securing a job better suited to his physical condition and also helping to adjust himself to his new work.

In the attempt to help the tuberculous, the worker has to keep in mind that the disease is communicable and that, therefore, she has to deal with a public health problem. Several fundamental factors have to be kept in mind when attacking post-discharge problems. Many tuberculous people apparently well and certainly able to work are at times open cases, i.e., they are throwing off tubercle bacilli. The closed case today may be an open one tomorrow. Also some are 'chronic carriers' of the disease. Therefore, the field for employment is to some extent limited. Hence, the social worker attached to tuberculosis service has to look to the suitability of employment both from the point of view of the dischargee and of the community. She has not only to be in the know of suitable jobs in the community but has very often to take a lead in organising vocational instruction and workshops for the tuberculous.

Occupational Therapy.—It is true that in a well planned tuberculosis hospital or sanatorium, occupational therapy department takes up the responsibility of training patients in arts and crafts. The aim of such a therapy is to assist and hasten recovery from disease through any activity, mental or physical, definitely prescribed and guided for the purpose. The teaching of arts and crafts to the tuberculous, while it does occupy their time, usually offers little hope of using the acquired skill as a remunerative vocation after discharge. What they are usually getting is merely diversional and avocational and not vocational instruction. Occupational therapy has, therefore, to take a new direction. Definite educational courses have to be formulated, based on a knowledge of the needs of the individual, determined by a careful study of his social, economic, educa-

tional and occupational background, his physical and intellectual capacities and limitations, his aptitudes and ambitions. As the social worker is in touch not only with the patient but also his home background, she can assist the occupational therapy department in this venture. Besides, after the patient has learnt the vocation, the social worker has to follow up the case and see that he is settled in life, well adjusted to his new environment and properly established in the habit of having his 'check up' done at regular intervals.

Though the medical social worker attached to a hospital, clinic or sanatorium may work with tuberculosis patients directly, her functions are slightly different. For instance, a patient may be diagnosed as tuberculous for the first time in a clinic. He may refuse to accept the diagnosis and want to go to some other doctor. In such a case, the first and foremost duty of the social worker is to help him to accept the diagnosis and undergo the treatment. If he decides to do so as an out-patient, the worker has to arrange for it. An O. P. D. patient often becomes irregular due to various social and psychological reasons. When a patient is hospitalised, he may have partly accepted the diagnosis. Here the problem centres more round accepting the new environment and getting used to being away from home and following the routine prescribed by the staff. In the sanatorium, the problem is very much the same. However, as a sanatorium is usually situated in a locality away from the town proper, it is possible that the patient may not have any visitor from home during the visiting hours. In all the three situations, the problem of after-care and rehabilitation is not lost sight of.

Organization of Entertainments.—The medical social worker attached to a tuberculosis hospital or sanatorium has, however, to hold entertainments from time to time to create a spirit of cheerfulness in the patients and help them overcome their home-sickness as well as the boredom of long treatment. She may have to organise a recreation club with the help of the members of the staff and the patients. She has also to encourage patients to develop hobbies and arrange to provide facilities for them. Such activities contribute much to the patients' recovery.

When the social worker is attached to a domicilliary service unit, usually known as Home Treatment Centre for Tuberculosis Patients, she has to be in close touch with the patient and see that the medical instructions are carried out adequately; that is, she has to see that the patient does not as far as possible infect others and that contacts are screened regularly. Here, though the social worker does not have to handle social and emotional problems arising out of the separation of the patient from home environment, she has to look into his domestic affairs to see that the patient gets enough nutritive diet while under treatment. She does not have to deal with this problem so long as the patient is in the institution and has facilities to carry on the doctor's suggestions.

Health Departments need Social Workers.—Even public health departments should have medical social workers attached to them, as they can render an important service in combating tuberculosis if the disease is notifiable. In that case, all cases of tuberculosis can be referred, immediately following diagnosis, to the medical social service section. The medical social worker will study the emotional, social and economic factors which reveal the patient's feelings about his diagnosis and his readiness and ability to carry out recommendations for treatment and also assist him and his family in taking the necessary medical treatment. In the case of those patients who take treatment under private physicians, the social worker can

follow them through their doctors. When a health visitor is attached to such a department, she follows each case of tuberculosis in a routine manner. Only when behaviour problems arise or the social and economic conditions seem to be a hindrance in the treatment, it is necessary to refer the case to the medical social worker for intensive social study and possible social care.

Joint Planning of Treatment.—Referrals to the medical social worker can be made at any time. When she enters the case at the point when diagnosis and recommendations have been made, mutual agreement between the physician, the health visitor and the medical social worker as to the part each will play in the plan of treatment can be outlined jointly. When the case is referred for social study and social and emotional treatment after the medical plan has already been agreed upon, there is an inevitable risk of overlapping in the functions of the health visitor and the medical social worker. This is readily understandable if one considers that both are working with the same patient and the same medical social problem. This can be avoided to a large extent, however, if the reason for referring the case to the medical social worker is understood and accepted by the other two. The reasons for referring a case to the medical social worker need to be consciously and clearly stated. Once the study of the patient's problem has been completed, the team should determine the division of responsibility for following the case through. Invariably the physician is responsible for the total plan of medical care. So far as the division of responsibility between the health visitor and the medical social worker is concerned, the plan may follow one of the three patterns: (1) when the health problem is paramount, the health visitor should carry the major responsibility and the medical social worker should serve only as a consultant in the social aspects of the service; (2) when the case is one calling for the special skills of both the health visitor and the medical social worker, it should be carried co-operatively; (3) when the social situation assumes major proportions, responsibility for social study and treatment should be assigned to the medical social worker.

In this connection, it may be mentioned that just because ill-health is a major problem in the family, it does not follow that the total programme of service to the patient and his family must be under the physician's direction. Professionally competent medical social workers will not work out social plans for the patient independently of the physician-in-charge, but will always seek his guidance. However, they have an area of service to render, involving special knowledge and skills with which the medical profession is not necessarily familiar; at times, social planning can be done best in co-operation with the physician and health visitor (on the case), but not necessarily subject to the physician's approval.

If the public health department has a case finding programme or B. C. G. vaccination scheme, the social worker of the team will be of much help when resistance from individuals has to be overcome. Most people are afraid of screening. They are afraid of the unknown, i.e., what may be discovered and they wish to avoid it. There is also resistance to B. C. G. vaccination. Some are afraid that some disease germ will be let inside and to some others, it means pollution. A doctor or a health visitor will be able to give medical interpretation to people about the significance of screening and B. C. G. vaccination, but when the problem centres round emotional resistance, it is the social worker's job to handle the situation.

Community Planning and Health Education.—In addition to the above services, the medical social worker co-operates with various public and private agencies in deve-

loping new resources in the community and participates in community planning for health and welfare. An important field where her help is very essential is health education. The purpose of health education is to inculcate the principles of healthful living in order to secure the full-cooperation of the individual in the maintenance of his own health. Sometimes people feel that a nurse, or a health visitor can impart health education because they know about health. As the handicap of illiteracy restricts the methods of appeal to the spoken word or to visual demonstration, if the nurse or the health visitor knows how to speak in vernacular fluently, she can do a good job of it. The medical social worker knows enough about health matters to impart it soundly to the lay group. Not only the content but the technique of imparting too is very important. It is one thing to give a few lectures or visual demonstration on health to the masses but it is quite different to help the community or group to assimilate the knowledge and put it into practice. To achieve this end, the educator should have a sound knowledge of the techniques of group work and community organisation—techniques to be studied in a professional school of social work.

Training Case Aides and Health Workers.—As there is a dearth of professionally trained medical social workers in our country, it has become imperative to train up a few case aides and health workers to do a part of the job. A qualified medical social worker can impart training to them. However, it should be remembered that a medical social worker herself cannot train other social workers just as one doctor cannot train other doctors. As there is need for a medical college staffed with various specialists to impart training to students to become doctors, similarly, a medical social worker needs to have his or her training in an accredited school of social work manned by various specialists. The case aides and health workers can supplement the work of medical social workers, but can never substitute them. In a hospital, for instance, there are cases that need very intensive social study and social care. Such cases must be taken care of by medical social workers. But, there are simpler cases which case aides with educational qualifications upto Matric can handle, provided they are given some orientation in understanding human behaviour and are guided by trained medical social workers. As our hospitals today cannot afford to have more than one or two medical social workers due to financial stringency, it is economic to have a few case aides attached to them. Similarly, health workers with similar educational qualifications can be trained by medical social workers. They can be oriented in current health practices and problems and taught something about community, group and individual approach. They can carry on health education for better living in communities under the guidance of a trained medical social worker and the doctor.

Social Orientation of Hospital Staff.—Besides the above, a medical social worker has various other functions. She is responsible for the social orientation of the staff of the medical setting to which she belongs. Since the medical social worker brings to the medical setting (e.g., hospital, clinic or sanatorium) knowledge and skill different from those of any other group there, it is appropriate for the worker to create in the staff an awareness of the social and emotional factors that are related to the medical and health needs of the patient. This can be achieved by particiption in ward rounds and staff meetings, and also by a programme of in-service training.

Besides, a medical social worker should participate in the education and training of student nurses, medical students, dietitians,

students specialising in hospital social work, occupational therapy, etc. She should also participate in the determination and formulation of hospital, clinic or sanatorium policies, with a view to socialising the set-up.

The medical social worker can be of immense assistance in the field of research. Since she helps the patient to accept medical recommendations and works for the continuity of treatment, she can enable physicians to observe the results of any particular treatment in which they may be interested. Or, when a patient does not respond to a certain type of medical treatment, the social worker can find out for the physicians whether or not the deterrent is a social factor which first needs handling before he is expected to respond. Such information would be of help in the verification of his reactions to a particular treatment. So much for medical research. The medical social worker can help in the promotion of social research too. She observes the social and emotional components of the disease, studies the lack of community resources, the need for new sources and can throw much light on these problems. Properly kept case records by a medical social worker can provide research material to other social workers in the community.

From all that has been said above, it must be evident that for social work in connection with tuberculosis, we need the services of well qualified social workers with specialisation in medico-social field. Anybody just interested in this work will not do. Social work methods have a scientific basis. Methodical skill is essential for scientific social work. It is not just intuition and commonsense. The profession of social work today presupposes a scientific body of knowledge which should be acquired in an accredited school of social work before any individual is entitled to practice it.

Recruitment and Training of Medical Social Workers.—Very often it is thought that concentration on educational requirements would make one overlook necessary personal attributes of the workers. Our schools of social work do pay attention to personality factors in the selection of students, and have been fairly successful in recruiting university graduates, men and women, who possess those qualities of warmth, sympathy, and sensitive understanding that are regarded as necessary for the successful practice of the profession of social work. No person should be allowed to take up a medical social worker's post unless he or she has had the necessary specialised education in the field, possesses maturity of judgment and a definite interest in working with patients. Academic preparation for this type of social work is extremely valuable and essential. A good combination would be (I) an adequate background of general education, (II) interest in the sick, (III) ability to overcome fear and aversion of the sight of blood, dread of disease and death and, (IV) special training in a school of social work in such subjects as, sociology, social pathology, Indian social problems, social legislation, case work, group work, community organisation, information on psychiatry, psychology, symptoms, causes and treatment of diseases, psychosomatic medicine, social and emotional components of illness and their care, and administration of medical social departments in various settings and so on. Students should be familiar with research methods also. Medical social work course *per se* is not enough. Every medical social worker should have general education of at least the B. A. standard; and medical social work training should be on a post-graduate level with supervised field work placements.

In training medical social workers for the tuberculous, in other words, in training the tuberculosis social workers, it is not necessary

to limit their training programme to tuberculosis field only. Some think that a tuberculosis social worker under training should have field work experience only with T. B. patients. They, however, fail to see that such a procedure will make the worker's vision narrow. There is the danger of her viewing the patient as a tuberculous lung only rather than as a person. Besides, a tuberculosis patient may also have diabetes, asthma, veneral disease, mental disorders, etc. It is important that the social worker should know how a normal person behaves as well as how a person behaves under stress and strain; she should know what are the social and emotional components of long and short term diseases, infectious diseases, psychoses, neuroses, behaviour, habit and personality disorders, etc. If a tuberculosis social worker is not familiar with the normal behaviour of human beings and the social and emotional problems arising out of various organic and mental diseases, she may take any particular reaction in the tuberculosis patient as due to tuberculosis only while it may be just his normal behaviour or may be due to some other reason, physical, social or emotional. The field work programme should give the tuberculosis social worker enough grounding in working with healthy people as well as people suffering from various organic and mental diseases, and also familiarise her with various community resources and how to use them. Therefore, her field work placements should be in adult and child psychiatry departments, hospitals, clinics, sanatoria, community centres doing health propaganda, and also family welfare agencies, where she can see and understand, away from the hospital setting, the personal and family problems arising out of the individual's illness.

Today many in our country object to the post-graduate training of social workers. They feel that it will sharply cut down the number of trained social workers, and at a time when the need for them is greater than ever before. However, every profession at one point or another in its development has to choose between emphasis upon quantity and emphasis upon quality, and our country should be sorry to choose the former. For erecting a house or bridge of brick and mortar, we need the services of well qualified and trained engineers with good educational background in the field. Then what about the training of those who deal with human material, the social engineers who are engaged in promoting the social well-being of individuals, families and groups and in restoring to useful life persons who have been victims of diseases and disasters! How can we be satisfied with three or four months' training for medical social workers given by various organisations? What sort of training can they impart within such a brief period in skilful handling of social and phychological problems arising out of diseases? We may be able to turn out many 'so-called medical social workers' who can be employed on small pay. But are they really qualified for the work? It is as aburd as giving medical degree to a person after a short course of training for about a year after I. Sc. and allowing him to practise as a doctor, because in our country there is shortage of doctors. The quantity would increase, but then the quality would suffer and in its turn affect the well-being of the people.

For dealing with the social and emotional problems arising out of tuberculosis, we need in our country the services of well-qualified male and female medical social workers; their salary should be in accordance with the training required for the position and the responsibility to be shouldered by them. Adequate salary coupled with high academic requirements should produce workers of integrity imbued with the spirit of service and the self-imposed responsibility for continuously educating themselves in new developments in this special field.

ORGANIZATION OF INDUSTRIAL CANTEENS

By M. N. Rao

The Factories Act 1948 makes it obligatory on management to provide canteen services in industrial establishments employing more than 250 workers. In the following article, Dr. Rao, who has made an observational study of some industrial canteens, makes valuable suggestions for their proper organization.

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The Factories Act of 1948 has a number of new provisions for the welfare of the workers. One of them is the compulsory provision of canteens in all industrial establishments employing more than 250 workers. This has consequently stimulated industries to develop their canteens. In 1948 there were only 259 Industrial Canteens making use of the rationing concession whereas in 1951 there were 312 in West Bengal. Other welfare measures are rest rooms in establishments employing more than 150 workers, of creches wherever 50 women or more are employed and ambulance rooms in industrial establishments employing a labour force of 1,000 or more. This note is the result of observation of canteens in industrial establishments all over India and is expected to be of some use to those factories which are planning to organise canteen service in their industries as per the new Factory regulations coming into operation in 1951. Experiences noted below are intended to be more as an intelligent guide than as rules and regulations. While starting a canteen service for the first time, the management would do well to take the advice of an experienced organisation like the Tea Marketing Board, who are always available free of charge to initiate and hand over to the management an efficiently organised canteen in good running condition.

Construction.—It is very difficult to suggest any rigid or hard and fast rules for construction and maintenance of industrial canteens. Any of the standard patterns designed by the British Institutions or suggested by the Indian Tea Marketing Board may be adopted. Only it must be spacious enough to provide for sitting accommodation of about 30% of the workers in any one shift simultaneously.

The location of a canteen naturally depends on the availability of space in the factory area. It would be an advantage if the canteen is located not too far from the factory and adjacent to the rest room.

In some factories visited, the management have provided a first-class pukka building, but in some others, have provided a construction of a temporary nature. The argument in the latter case was that when the factory proper requires space for enlargement, the temporary construction of a canteen is demolished and moved over to another site. It is, therefore, left to the management to decide whether to have a permanent or a temporary construction. It is not the amount of money that is invested so much as the attractiveness of the construction that is of importance.

Though the canteen is not intended to be a rest room, it still gives an opportunity for a welcome change from the routine factory environment. A small garden or a bright approach to the canteen, whether of a temporary or permanent construction, tones up the spirits of the industrial worker just out from the boredom of the factory routine.

Either at the preliminary designing or in the subsequent running of the restaurant, it would improve the employer-employee re-

lationship if a few workers are made to join hands with the management in a canteen committee. It would be ideal, however, if the workers themselves are given the entire responsibility of running the canteen.

The various parts of the canteen that are to be considered while designing the canteen are—(1) the store, (2) the kitchen, (3) the dining hall and (4) provision for cleaning.

(1) *Store.*—Some storage space has to be provided separately for essential items brought in either daily or periodically. Various foodstuffs are the usual daily purchases. Amongst the periodical purchases, may be mentioned the fuel. It is a practical proposition to store in reserve some kitchen and dining hall equipment. It would be a good idea if some storage space is allotted for the empty bottles and similar odds, which on accumulation can be disposed off at a price. It is advisable to store food, reserve equipment and empty bottles above floor level on shelves in the wall suitably supported, so that the floor is daily washable. With regard to fuel, however, the necessity depends on the type of fuel available. The cleanest, of course, is either electricity, gas or steam, which do not require any extra space. If the factory can afford it, the best, therefore, is one of these. There is one factory in greater Calcutta area which uses electricity. It is certainly an ideal; but the commonest type of fuel—a dirty one—is coal or soft coke. The latter is preferable as it emanates less smoke. In the store therefore it is a good idea to plan for a separate dumping entrance with easy access for periodical removal into the kitchen. The main entrance or preferably the only entrance in the store room must always be locked for obvious reasons. The same entrance can be used for both receipt and issue of stores. A weighing machine to check the quantities of goods is a definite necessity at the entrance. A single pan home-balance is preferable to a counterpoise two-pan type machine.

Sanitation is of importance in the store. It is essential that the floors are made of some material which is readily washable so that each time the store is used, it is cleaned of all food material. Any food material on the floor is an attraction for rats and cockroaches. For the same reason, receptacles for all foods are best covered up always with proper lids. A constant stock of spray type insecticides is desirable for periodically spraying the store, kitchen and dining room.

(2) *Kitchen.*—The kitchen can be divided into two parts: (*a*) the preparation room and (*b*) the fire place, or the actual cooking place. The preparation room or the preparation space inside the kitchen should preferably be raised above the floor area and provided on the side with a garbage can with lid and side hooks for lifting. It is a good practice to train the kitchen staff to develop the habit of using this garbage can. In modern preparation rooms, occasionally found in India, a mechanical potato peeling machine and power-operated mincing machines are useful adjuncts to the kitchen and economical in the long run.

The kitchen proper should preferably be on the same level as the dining hall for easy access of cooked food to the dining hall counters. It is also advantageous to have the floor non-slippery. It is recommended that the floor and the walls upto 4 ft. are made up of such material like glazed tiles which make it easily washable. As the kitchen is a constant source of heat, it is also recommended that there is enough floor space for the kitchen staff. Ten square feet per capita is a reasonable minimum. The actual cooking section is best in the centre, specially if the fuel is coal. If some of the modern patented cooking ranges for coal are installed, the cooking section might

be kept anywhere. Only the chimneys and flues have to be designed in such a way that there is a constant upward draft to carry away the smoke. The best index for an efficient design and working of a kitchen is clean walls with no smoke in the room when the kitchen is in use. Such a kitchen is not unattainable. The Bata Shoe Co. at Batanagar has a kitchen which is nearly ideal.

At some place in the kitchen it is desirable to have a corner reserved for clean work clothes for the kitchen staff. A few lockers, if afforded, would be very sanitary indeed. Running water is also best provided in a corner.

(3) *Dining Hall.*—The dining hall is the most important, especially because the worker comes into contact only with the environment of the dining hall. A bright dining hall with good ventilation, good lighting and a few fans is desirable. If the halls are decorated with pictures of taste to workers, it is better. The pictures need not necessarily be pin-up girls in bathing costumes. The walls may be decorated in addition to attractive or pretty pictures with interspaced health education material in nutrition as is done at the Square Meal Canteen in Bombay. The dining hall should have preferably a number of entrances so that the workers rushing for food are not made to wait. The entrances and windows of the dining hall and the kitchen are best fly-proofed with 16 mesh wire-netting, as is done in the Ambika Jute Mill Canteen at Belur. Whether one entrance or many entrances to the dining hall, it is desirable that the workers have access at the same time to a number of wash-basins. I have yet to see anywhere in India an idustrial canteen where every worker is provided with cutlery. Eating with hands is the commonest practice, and cleaning hands before is to be encouraged. These wash-basins—a couple of broad sinks usually suffice—may be suitably located so that they can be used also for cleaning up after food.

The problem of providing soap at the canteen wash-basins to wash hands is a touchy one. Many a canteen manager has complained that the soap disappears from the sink. Perhaps the only solution is to provide a less portable soap like liquid soap in a container fixed to the wall and usable by tipping the container. A novel practice in one of the mills in Howrah area, manufacturing storage batteries, is to provide the workers with plenty of saw dust, with which they can scrub their obviously dirty hands before going to the dining hall. Saw dust or any other substitute like jute waste may be tried.

After washing, the hands have to be wiped and there is a necessity for provision of some towels. Paper towels may be too fashionable, though hygienic. In India, the only alternative is a cloth towel. A common observation, when cloth towels are provided, is that the towels are mislaid. Frequently, it is on the floor having dropped from the nail or the rod. It is, therefore, a good idea to have an endless towel by stitching up some 6 ft. to 9 ft. of towel cloth and slip the same on to a rotating rod parallel to the wall. The towels may be replaced whenever found necessary by the attending staff at the dining room. The disadvantage commonly complained, however, is that the towels are misused, e.g., for blowing the nose. This can be avoided only by proper health education.

The type of service inside the canteen is optional, either, the cafetaria system or the restaurant system. In the cafetaria system the worker serves himself, whereas in the restaurant system there is a server in attendance. The disadvantages and advantages will be discussed later, but whatever system is adopted, it is essential that the worker does

not have to wait for food in the dining hall for a long time.

To avoid overcrowding inside the dining hall, the Indian Tea Marketing Board recommends 8 sq. ft. per diner if there are fixed seats and 9 sq. ft. it there are tables and chairs. But 12 to 15 square feet floor area in a dining hall makes it always more delightful and pleasant.

Opinion varies about the type of seating accommodation. To avoid repetition of long work-benches which the worker is accustomed to in the factory, it would be advisable if tables are small. The worker can have some importance at the small table instead of being one of many at the long one. Fixed tables are preferable because they make the dining room more orderly. The seats, preferably chairs and not benches, are better not fixed.

Wooden table tops get dirty too soon especially because of the cleaning up with water more than once in the day. The ideal would be a marble top or if this is too costly, a mosaic composition top. Another alternative which has been successfully used at Tobacco Manufacturers (India) Ltd. canteen was galvanised sheeting for table tops. The table tops were as bright and clean as stainless steel. Table cloths in the few industrial canteens providing them were not successful.

Use of banana leaf or other leaves for eating is not to be encouraged in a common eating place like a factory canteen, though it might be a success in some canteens in South India. An ideal would be a tough-brand of crockery, but in Indian hands even they get broken too often. A chipped plate is never to be recommended because of the possibility of dirt and infection in the cracks. As a practical solution may be considered aluminium ware. The only difficulty with aluminium ware is that they get out of shape very easily. Care has, therefore, to be taken in using them. In some canteens brassware has been used with success. Brassware has an additional advantage of polish which the aluminium ware cannot have. Brassware is however costlier in the beginning, though it is cheaper in the long run as it does not need replacing often.

It is desirable that the dining room is not sub-divided. It is wrong to have separate enclosures, either for men and women, or Hindus and Muslims, or workers and supervisors. In very few factories is there a custom of separate communal dining hall or kitchen, but it is surprising that a good number of canteens have some sort of demarcation at the dining hall between the workers and the senior staff. A common eating place would make the worker feel his importance if he were allowed this little liberty of taking the same type of meal as the supervisory staff under the same roof. In some factories, though it is the same type of meal a little extra charge is made to the supervisors as a sort of distinction. This is a constant source of grudge from the workers. The workers feel that the other man beyond the screen is a ruling class and that he is getting better food though it may not be true. It is therefore essential that no distinction is made at the dining hall between workers either amongst themselves or some others.

An occasional problem in the dining hall is whether the hall could be used by workers bringing in food from their homes. Though they cannot be debarred, there are some potential difficulties in administration. For the same reason the canteen should not take the responsibility under any circumstances of collecting and storing the workers' rations, to be served back to them after preparation.

(4) *Cleaning.*—One of the essential aspects of designing a canteen is to provide for

prompt cleaning services for the utensils after eating. A very good arrangement seen at India Paper Pulp Co. at Naihati is the special exit at the far end of the dining hall for removing the waste vessels. The idea of having the exit at the far end is to eliminate the bad psychological reaction to the diners when unclean utensils are carried in front of them. Efficiency in cleaning utensils satisfactorily should be aimed at. If there is more than one cleaner available, it would be a good idea to divide up the labour. One uses a brush to remove all solid remnants on to a garbage can, the second either polishes up with some degreasing powder and wire mesh cleaner or dips the ware preferably on racks into hot water with some degreaser like sodium bicarbonate. It would be ideal if the final washing is done in clean running water or boiling water and dried up with or without a clean cloth on to a clean platform. It is doubtful whether rinsing with potassium permanganate as is being done in some factories is of much use. Use of 200 PPM chlorine solution as a disinfectant is certainly better but the strong smell is at times deterrent and the strength falls down rapidly. Boiling water is the most sanitary method of cleaning that is recommended and in industrial canteens there should not be any dearth of boiling water.

Staff.—It is rather difficult to fix up any standard about the number of staff. There are many factors to be considered. (1) The type of services, whether restaurant type or cafetaria type, (2) the extent of service, whether restricted to the canteen or also inside the factory, (3) the method of purchasing provisions, whether by canteen staff or through contractors, (4) the type of food served, whether just snacks and tea or full and (5) the individual efficiency of the canteen staff.

It is therefore considered a good idea to represent the amount of staff as proportionate to the cash sales in the canteen. In my experience as per conditions existing in 1950, an average number of the canteen staff has to be paid 80/- to 100/- total. The range was 65 to 125. It would not be a bad organisation if the ratio of the canteen staff salary is maintained about 1/5th of the monthly collections from canteen. In the higher class canteens visited, the ratio was even 1:2. There are some factories where it was as low as 1:10. Thus a canteen spending 400 to 500 rupees on 5 efficient members of the canteen staff could cater without difficulty to workers taking tea snacks and lunch at the factory canteen to the extent of about 2.000 to 3,000 rupees a month, or with daily sales of approximately 100 rupees. Of course, much depends upon the efficiency and willingness of the canteen staff. If worked out on the basis of the number of workers inside the factory, one canteen worker to every 150 to 200 factory labour should not be far wrong. The kitchen and dining hall staff usually employed in canteens are not always clean. They carry their dirty habits to the canteen and it is highly desirable that they are trained in clean and healthy habits. To avoid their spreading any disease it is necessary that they are examined personally, specially for the "carrier" state, by the medical department and minimised against the common diseases.

Another point for consideration is about the free provision of food for the canteen staff. It is to be expected of an average Indian canteen staff that he usually helps himself with food in the canteen irrespective of the regulations imposed on him. It would be a good idea, therefore, to accept this necessary evil and issue provisions from the store to include the food for the staff also.

Another important but touchy point with regard to the canteen staff is, should they be regulated by 48 hour week like the other

factory workers? It is to the advantage of the canteen worker to have fixed hours because any extra time counts as overtime, but more often than not, it does not work out satisfactorily in practice, especially because maximum work for the canteen staff is at the off time during tea or lunch hour of the workers. It would be a better idea to estimate their approximate overtime and include it in the salary, so that there should be no rigid hours for this essential service inside the factory. The canteen staff are best appointed and supervised by the Canteen Committee. If the management were to appoint, the staff will automatically claim the legislative protection with working hours, bonuses etc.

Services.—The ideal for an industrial canteen would be a cafetaria system where the worker queuing for food, selects whatever he wants from the foodstuffs displayed and at the end, the payment is made according to the items selected to the cashier in cash before the worker goes to the dining table. If the cashier has an automatic registration counter, there is no chance of any wrong accounting or registration of cash sales. But such a machine is costly. An ordinary slip receipt book should serve the purpose equally well.

A similar cash system can also be used in the restaurant type of service. If the server is smart, he can hand over a chit noting down the cost for the amount of food served and this is paid in at the gate before exit. This, of course, indicates certain amount of alertness and honesty on the part of the servers.

The two types of food served usually are (1) tea and snacks and (2) full meals. Tea and snacks service is more profitable. There is more out-turn and more demand for tea than for full meals. Moreover tea is cheap. If it is prepared, for example, according to the formula of the Tea Marketing Board, one seer of milk plus half a seer of sugar plus 1 lb. tea powder for 320 cups of 5 ozs. should not cost more than about 5 pies at the prevalent prices. The minimum sale price encountered usually is $\frac{1}{2}$ anna and at times even $\frac{3}{4}$ anna. One is not justified in charging one anna for a 7 ozs. cup of tea. Usually, the profits made in the sale of tea and snacks are made available to subsidise full meals. A balanced meal costs anywhere from 8 as. to 10 as. and no canteen is popular if the charges for a full meal or lunch is more than 3 as. or at most 4 as. The average worker in India is paid Rs. 12/8/- per week to feed himself and three other mouths and it would be asking too much for more than 3 as. for one meal in the day for the worker however much the meal is balanced. This subsidy has to be made up either by the management or by the tea and snack sales.

Planning scientifically a midday meal to balance the deficiencies in the diet of the Indian worker is not possible at the present state of our knowledge. Hardly any diet surveys have been conducted in industrial areas and reported so far. An intelligent surmise, however, based on meagre information is that animal protein, vitamins A and B_2 and sodium chloride are fairly uniformly deficient. A recommendation by the Nutrition Department of the Government of Bombay to supplement skimmed milk powder to wheat to make up the deficiency in animal protein and supply of multipurpose tablets for the deficiency of minerals and vitamins are good suggestions for consideration. A balanced midday meal usually means to the Indian worker a bellyful meal which gives him satiation. But this is to be deprecated on two grounds. Firstly, a full meal (with high calorie content) is not conducive to active work soon after the meal. Secondly, in times of scarcity of food, the management might have some difficulties with the

rationing authority. The rationing authorities have different rules in different States. For example in Bombay they provide for the industrial canteen an extra provision of 25% of the workers' rations for the day and in West Bengal 50%. Still if the canteen commits itself to a high calorific midday meal, they may have to experiment with supplementary foods if the rationed foods are not adequate for any reason.

Payment.—A sound system of payment for the food purchased is necessary for economic running of a canteen. Payment can be one of three types :—

1. Cash purchase on the spot,

2. Payment by coupons purchased in advance,

3. Credit purchase by cash or coupons.

All the three systems are known to work satisfactorily in Indian factories. If everybody takes the same type of food, daily payment by any system would be simple, but it never is the case. The system of payment has to provide for different amounts of payment by different people on different days.

Each of the three systems has advantages and disadvantages. The cash payment, of course, is the ideal one if honesty of the canteen staff is beyond reproach. But it is more an ideal than a practical proposition. Cash payment works well with cafetaria. There are a few cafetaria types in industrial areas in India and they are popular because of the simplicity in technique, and the choice given to the worker in his food. There are usually a couple of counters—one for tea and one for snacks. The man at the counter is expected to collect a fixed amount depending on the foodstuffs or the amount of tea supplied. Petty pilfering even here is not uncommon. It is next to impossible, for example, to detect four cups of tea being distributed in 5 cups and the charges for the fifth cup pocketted.

To guard against such loopholes and also for better administration coupon system of payment is highly desirable. Coupons are purchased in advance and the foodstuffs paid for in coupons. There is thus no transaction of cash in the canteen at the time of the purchase of the food.

The coupon system which is certainly to be advocated requires some elucidation. The coupon system is not foolproof and can be misused. I know of one canteen where coupons were being sold by a member of the canteen at one end and the same member of the staff later moves over to the food counter where he receives the coupons. Here is an obvious source of temptation for reselling the used coupons. It is therefore advisable that the two, (1) issuing the coupons and (2) receipt of the coupons are vested in two different individuals. It is better that the person to issue the coupons is of a responsible position, either a Cashier, a Manager of the restaurant or the Labour Officer as is convenient; and the staff receiving the coupons instructed to mutilate the coupons for distinguishing from unused coupons.

Coupons may be of different varieties and may be of different denominations. I know of one canteen where there are no less than eight denominations of coupons starting from ½ anna to 8 annas. It is laborious and inefficient. The best coupon system is the simplest. The common denomination for the coupon either ½ or 1 anna or at most both is to be advocated. A serial numbering of the coupons at times gives one a chance to go through any irregularities. But it is not always necessary, e.g., Dunlops Canteen at Shahganj has got a metal disc coupon which is too difficult to be reproduced outside. The metal disc like that in Banks, bearing the name Dunlop is collected at the place of eating.

The coupons, if sold in advance, would give an idea of the amount of food that has to be prepared. But if sold too long in advance and especially when the coupons are standardised, one has to watch for counterfeiting. For this it is suggested that the coupons are distinctive and sold only for one week in advance at the most. The coupons of one week should be invalid the next. Different colourations or numbering is successfully tried in some canteens visited. Selling the coupons for standard food like full lunch one week in advance is advantageous in factories where weekly payment of wages is made. In this connection, the system being followed by Chloride Storage Batteries at Shamnagar is nearly ideal. They sell a small brochure of six detachable coupons once a week in advance. Each day of the week is marked on each of the six and all the six bear the same serial number. The worker gets his lunch in exchange for the coupon of that week-day and he can claim rebate on production of unused coupons. It is true that such a system of coupons is costly. On the other hand, it is equally costly and laborious to maintain registers of workers who give notice of their full meals. There is one factory in Northern India which maintains three registers daily for the workers taking full lunch. The reason given by this factory is not very convincing. The lunch is subsidised and is cheap. Hence this factory contends that no outside worker should take undue benefit of the cheap well-balanced lunch. An alternate suggestion in such cases will be to challenge a suspected outside intruder to show his factory check token. In one factory in Howrah, the manager of the factory himself goes round when these coupons are being sold to see that outsiders are not benefited nor are the coupons sold by workers at a higher rate.

The best method perhaps would be to have the coupon sales for both snacks and full meals, coupons for full meals being sold a day in advance and coupons for tea and snacks being sold on the spot. Sale of coupons weekly or monthly in advance on the day the wages are paid is a useful suggestion worth trying. With some experience, it is possible to have a rough estimate of the number of snacks and teas likely to be consumed in a particular factory on a particular day. But it would be wasteful to guess the number of meals without prior information preferably by the purchase of coupons in advance. In one factory, a full meal is provided at the cheap price of 3 annas for lunch through coupons purchase and the cash purchase is limited to purchase of supplements like fish at 2 annas per piece. Any such combination of coupons and cash sales can always be worked out by practical experience.

The third system of sales by credit and deductions of the credit total for the week or the month at the end is usually welcome. It requires some accounting and deductions from the wages which might require prior Government sanction. But there is no doubt such a system in a well-organised and cheap canteen encourages the workers to purchase more and better food from the canteen.

Some Important Points for Better Employer-Employee Relationship: (1) *Subsidies.*—It is obvious that a successful canteen of hygienic standard can never pay for itself unless the sales are limited to just tea only or rarely snacks also. The large number of industrial canteens visited were being subsidised by the management. The subsidy may be in relation to more than one item.

(*a*) The building itself according to the Factories Act must be provided for by the management. It is obvious that electrical fittings, kitchen ware, dining tables and chairs are a commitment to the management. There are excellent canteens where more than a lakh of rupees were spent as a capital

expenditure and there are also canteens successfully run on capital expenditure less than 20,000 rupees for serving the same number of users—about 250 to 400. Much, therefore, depends on the local conditions regarding the amount to be spent by the management on capital expenditure towards the canteen.

(*b*) Canteen staff in the large majority of cases is also paid by the management, though it is not obligatory on their part. A few canteens, however, are running successfully on a co-operative basis paying not only for the foodstuffs but also for the personnel employed in the canteen.

(*c*) In those factories where porcelain is used by the members, the heavy breakages —about 25 per cent replacement annually to be expected—should normally be a charge on the users of the canteens. But the management might take upon itself the charges for replacements also.

(2) *Canteen Bulletin.*—The canteens are best run on no-profit-no-loss basis. Under such circumstances, not only is there no intervention from the Government regarding sales tax etc., but the workers are conscious of the bona fides of the management. For the same reason, it would be an advantage if the workers are encouraged to have a monthly canteen bulletin and the printing expenses defrayed by the management. Such a system was in practice at the Hygiene Institute and it was liked by the members.

(3) *Co-operation.*—The employment of contractors always is a source of trouble. No contractor runs the canteen at a loss. His profits therefore must be made to subsidise the cost of food by a co-operative effort on the part of the workers themselves who may be periodically elected. This would mean giving them even more importance than the management joining hands with the workmen in a Canteen Committee.

NEWS AND NOTES

ORGANISING RURAL UPLIFT PROJECTS

The Planning Commission has recommended to the State Governments the broad framework of the organisation that should be set up for the community development projects which will be financed out of the Indo-American Technical Co-operation Fund.

The suggested set-up aims at providing a type of organisation in which, while the direction and the initiative will come largely from the top, the maximum enthusiasm and co-operation from the people will be assured and the projects will be pursued as a co-operative endeavour of the public, with active assistance from the State.

With this object in view the State Governments have been advised to establish a State Development Committee with the Development Commissioner or the Development Secretary as the Secretary. Maximum emphasis is given on the selection of the Development Commissioner, as the Commission feels that, on his competence depends, to a very great extent, the success of the entire programme of rural development and agricultural production.

Selection of Officers.—At the District level, the Commission recommended, there should be a District Development Office specially in charge of the development programmes. In the selection of executive officers for the projects, special regard should be given to experience general outlook and understanding of the needs and methods of community development and capacity for leadership as well as ability to secure both official and non-official co-operation. For appointment to these posts, it has been suggested that it would be desirable to select the best available persons, whether from official cadres or otherwise.

At the centre, the Planning Commission has been appointed by the Government of India as the Central Committee under the Indo-U. S. Technical Co-operation Agreement. This Committee will lay down the broad policies and provide general supervision and will be assisted by an Advisory Board consisting of Mr. Vishnu Sahay, Secretary, Ministry of Food and Agriculture, Mr. K. R. K. Menon, Secretary, Ministry of Finance, Mr. A. N. Khosla, Additional Secretary, Ministry of Natural Resources and Scientific Research and Mr. P. C. Bhattacharya, Joint Secretary of the Ministry of Finance. Mr. S. K. Dey has been appointed Administrator of Community Projects under the Central Committee.

One of the principal duties of the Administrator would be to ensure that the experience gained in different parts of the country on community development is properly pooled and utilised.

It is proposed that the principal officers concerned should meet to consider common problems and review the experience already gained in different States and on particular projects like those at Etawah, Nilokheri, Faridabad, and elsewhere.

The Central Committee would welcome contributions in money and also voluntary work for the projects that are proposed to be launched.

FIGHT AGAINST T. B.

Interesting figures are available of tuberculin testings and B. C. G. vaccinations in India to the end of February. Of nearly seven million cases tested, there were 3.1 million positives, while the number vaccinated with B. C. G. exceeded 2.2 million. In the use of B. C. G. for vaccination, Assam leads with 4,40,000 the Punjab coming next with 374,000. The U. P. and Bengal follow with nearly 3,00,000 and 2,00,000 of vaccinations respectively. From the figures, it is clear that the campaign has made comparatively little progress in Madras, the number of B. C. G. vaccinations being a little over 27,000.

In the U. S. A., two views have been expressed on the efficiency of B. C. G. Doctors Palmer and Anderson of the U. S. Public Health Services, stated thus a few years ago before the annual meeting of the American National Tuberculosis Association:

"Perhaps the most impartial statement that can be made about the statistics of B. C. G. is to say that the controversy about the vaccination has not been resolved..... The pros and cons of to-day do not differ materially from those of yesterday.

"Whatever the use of B. C. G., let us be certain that no one places reliance on it to the extent of relaxing methods of tuberculosis control in the protection either of the community or of the individual".

Another authority (also from America) observed last year.—"Not only are the claims of good results from B. C. G. unfounded, but the whole idea of a vaccine against tuberculosis is based on a fallacy".

W. H. O. Committee's Report.—On the other hand, there is the weighty testimony of the W. H. O. which, in co-operation with UNICEF, inaugurated a B. C. G. vaccination programme in many countries of South Eastern Asia. According to the Tuberculosis Expert Committee of W. H. O., "B. C. G. vaccination is able to increase the resistance of unprotected individuals against subsequent tuberculosis. It is considered that the number of individuals who would benefit from B. C. G. vaccination on a large scale would be especially large in communities where tuberculous infection and disease are frequent. Mass vaccination with B. C. G. should, therefore, be recommended especially for communities with high tuberculous infection rates and mortalities. It is, however, recommended that even in countries where tuberculous infection and disease are relatively infrequent, B. C. G. vaccination should be applied to individuals and groups with a high degree of exposure to tuberculous infection such as familiar contacts and persons with occupational hazards".

The Committee has quoted statistics from several countries, such as the U. S. A., Norway, Denmark and Canada, to prove that the number of cases of tuberculosis amongst those vaccinated with B. C. G. is much smaller than in the unprotected groups. In the U. S. A., tuberculosis deaths among the vaccinated groups were only six as against fifty-three in the other category. In Norway, the verdict is that T. B. is reduced to about one-fifth in the vaccinated groups as against the non-vaccinated groups. Similar figures are given from other countries to indicate that B. C. G. vaccination has a definite protective value against T. B. both as regards morbidity and mortality. The case for B. C. G. vaccination has sometimes suffered from over-statement. Its advocates do not claim that T. B. cannot be controlled without B. C. G. nor do they assert that B. C. G. can control T. B. completely without the aid of other anti-T. B. measures.

An editorial comment of *Tubercle* (*January* 1949) said.—"We have difficulty in understanding why B. C. G. is singled out (in England) for dilatory management. No one has ever shown that the vaccine has done any appreciable harm: no one has ever been able to make it become virulent, while the evidence as to its value pours in from all over the world".

Toll of T. B. in India.—So far as one can estimate, tuberculosis claims an annual toll of half-a-million a year in India, while the number of active cases is at least five times that number. During the last three years, tuberculin tests in different parts of the country, covering nearly seven million persons, have revealed a widespread high infection rate. Positives at the age of fifteen are between 50 per cent to 75 per cent in urban areas and between 36 per cent and 54 per cent in rural areas.

If the standards of advanced countries were to be applied to India, we would require about 4,000 clinics and half a million beds for T. B. patients. Actually, there are only 119 clinics and 10,000 beds. In terms of money, about 450 crores of rupees would be required for the establishment of the minimum number of institutions and 60 crores a year for their maintenance. In fact, however, the expenditure on T. B. in the whole of India is not more than 2 crores a year.

It is in the light of these figures that one must state the main objective of the B. C. G. vaccination programme in India. The reduction in T. B. morbidity and mortality will be one-half to four-fifths of what it is at present—in about 20 year's time. The essential condition, however, is that B. C. G. vaccination should be carried out on a mass scale and in the shortest time possible.

There are about 170 million persons below the age of 20 in India, and about 10 per cent of this number are in the urban and semi-urban areas. At least half of these are tuberculin negatives. If the whole of this group or at least 80 per cent be vaccinated in the next five years, and the campaign is continued in respect of succeeding generations, a substantial reduction T. B. morbidity and mortality can be expected in 15 to 20 years. But no one is entitled to accept or demand immediate or spectacular changes in the epidemiology of T. B. by vaccinating small groups here and there.

Cost of Vaccination Programme.—A team consisting of a doctor and six technicians with the necessary ancillary staff and adequate transport facilities can test, at least, 100,000 to 150,000 persons a year. This is based on the experience of mass vaccination that is now proceeding in India. Two hundred and twenty-five such teams can complete a mass vaccination programme in five years. It has been estimated that each team may cost about Rs. 15,000 to Rs. 17,000 a year. If, for the country as a whole, Rs. 35 lakhs a year or Rs. 1.75 crores for five years for field work are provided, it should be possible to vaccinate the majority of the tuberculin negative population in the country during this period. In this calculation, it is assumed that the equipment and transport that are necessary for work will be supplied by UNICEF as it is being done at present. The estimated cost of these is about 20 lakhs of rupees. In addition to this, about 2 lakhs of rupees a year have to be provided by the Government of India for the production and distribution of vaccine, and Rs. 4 lakhs a year for the Central B. C. G. Organisation and about half to one lakh of rupees a year by each State for the State Supervisory Organisation.

One essential condition is that a mass vaccination programme should be closely integrated with the public health administration of each State.

One is often asked whether mass vaccination is a practicable proposition in

India. The answer is: it can be done, but there are many difficulties to overcome. Lack of funds is a formidable obstacle. Without the co-operation of the public it would be impossible to carry out with any success such a mass programme. Moreover, in a country like India, the availability of suitable transport, especially in the rural areas, would be a decisive factor. UNICEF has generously provided a number of motor vehicles. There is also the question of adequate supply of potent vaccine; and last but not least is a proper organisation for planning and directing the work of a mass vaccination campaign. In India, since public health is a State subject, the function of the central organisation would be mainly advisory. The States which are concerned with the day-to-day work in the field must therefore take the initiative.

RESEARCH WORK IN CHILD T. B.

Rajkumari Amrit Kaur, President of the Tuberculosis Association of India, addressing the annual general meeting of the Association, held at Rashtrapati Bhavan in April this year, pleaded for the establishment of a centre for research in child tuberculosis, an aspect which had been ignored uptill now.

India's requirements of hospital and sanatorium beds, clinics and trained personnel were enormous. The Central and State Governments were doing their best in this respect. But as this alone was not enough, she added, the Association and its branches were emphasizing preventive measures which, if carried out effectively, would prove less costly in the long run than curative methods. The Government had taken up preventive vaccination as one of its important and immediate programmes.

Since India achieved independence, the tuberculosis campaign had received increased momentum. The number of beds for tuberculous patients had been more than doubled during the period and in certain centres care and after-care committees and home treatment schemes were functioning efficiently.

The Health Minister drew special attention to the recommendations of the Planning Commission that organizations employing a large number of workers should provide facilities for the care of their tuberculous patients. The railways were taking steps to provide immediately 250 beds for their employees in the existing sanatoria in India. The P and T Department had similar plans. The Defence Ministry had already about 450 beds. She cautioned the public and doctors against putting too much faith on advertised drugs until their efficacy had been substantially proved.

The Health Minister thanked the W. H. O. and UNICEF for "the substantial help they had given and were giving for the anti-tuberculosis work in India.

Earlier Dr. K. C. K. E. Raja, presenting the 13th annual report of the Association, said that the control of the spread of tuberculosis would be placed on an effective basis if all the States undertook BCG vaccination on a mass scale. "What is desirable is that the country as a whole be fully immunized within a period of five to seven years. Certain State Governments are unfortunately lagging behind in the development of BCG vaccination" he revealed.

Dr. Raja made a plea for diversion of as much money as possible from the existing funds available with the State Governments for fighting tuberculosis to a "steady expansion of BCG vaccination".

WOMEN FOR NURSING

In their addresses at the annual general meeting of the Indian Red Cross Society and St. John Ambulance Association, Dr. Rajendra Prasad and Rajkumari Amrit Kaur appealed to women in India to take up, in larger numbers, nursing as a profession.

The President expressed his disappointment at the poor response from women to the Association's training course in home nursing. He appealed to them to have themselves trained in the art of nursing "which, by tradition and temperament, is particularly their own exalted sphere of work".

In a brief address, the President commended the activities of the two organizations during the year and felt sure that the Red Cross in India "will receive increasing support from our people to enable it to carry on more effectively its mission of mercy".

He mentioned the Society's work in food scarcity areas, especially in Bihar and Madras "where, surmounting difficulties of distance, large quantities of relief supplies were rapidly sent for distribution among the distressed. The generous help received from sister societies abroad for the alleviation of suffering in India demonstrates once again the bond of fellowship subsisting between the far-flung members of this humanitarian movement in our land".

Dr. Prasad added: "Perhaps the clearest evidence that the Red Cross is destined for greater service in India of the future is the continued development and extension of the Junior Red Cross whose members are the torchbearers of this humanitarian movement in our land".

He was gald that in spite of the unprecedented calls upon its resources, the Society was able to continue unhampered its normal activities for the civilian public and the Defence personnel.

Health Minister's Speech.—In her address, Rajkumari Amrit Kaur said the progress of training in Home Nursing was still far from satisfactory and it was necessary to intensify the campaign to encourage a larger number of young women to take advantage of the course. The Health Minister gave a detailed account of the activities of the two bodies. A notable feature of the Association's work in 1951, she said, was that 71,623 persons—the largest in any year so far attended St. John Ambulance classes and 84% of them qualified for certificates.

The major activity of the Red Cross Society was the help given to the food scarcity areas. The task of rushing relief supplies for the famished areas so widely apart as Bihar, Madras, Bombay and Bengal was formidable.

The year was significant in the history of the Medical After-Care Fund as it marked the completion of 10 years of assistance in the provision of medical treatment and aid to ex-service personnel. The Junior Red Cross completed 25 years of progressive activity and its membership stood at 9,75,000. She was confident that the Society would continue to receive public support because on that depended its strength and usefulness.

The President nominated Rajkumari Amrit Kaur to be chairman of the Indian Red Cross Society and St. John Ambulance Association for 1952-53.

EMPLOYEES' STATE INSURANCE SCHEME

Dr. C. L. Katial, Director-General of the Employees' State Insurance Corporation, Government of India, stated that the Employees' State Insurance scheme might be introduced throughout India by 1954.

"Once the Central Act has been passed,

I believe all the State Governments will consider it sacrosanct", he said.

Dr. Katial expressed the hope that Mr. C. Rajagopalachari, the new popular Chief Minister of Madras, would support the Corporation in introducing the scheme in the State.

The Madras Government, he said, though originally supported the scheme, had recently raised some objections, as they had to contribute about Rs. 6 lakhs annually for the medical service to be introduced in the State under the scheme. The objection related mainly to financial commitment and also lack of sufficient doctors.

Medical Service.—Dr. Katial said for introducing the medical service in the State, they would require about 1,000 doctors in three years to attend over 25 lakhs of people. If the doctors were registered under a panel system, he said, they would be willing to work for which they would be paid on per capita basis. This system would also create a healthy competition among doctors. The doctor who was popular would naturally get a larger list of persons for treatment, he said.

The Madras Government had to spend only Rs. 6 lakhs while the Corporation's contribution for introducing this scheme in the State would be about Rs. 12 lakhs.

Dr. Katial said the scheme which was introduced in Kanpur and Delhi in the first instance, was now working quite satisfactorily. In August this year, the scheme would be introduced in the whole of Punjab, and in Bombay, Bangalore and possibly in Ahmedabad, it would be introduced in January 1953 and in Madras in July the same year.

BASIC EDUCATION MUST REPLACE PRIMARY

The Central Advisory Board of Education, which met in Delhi recently, has recommended unanimously that primary education should immediately be replaced by basic education.

The Board reaffirmed the value of craft work in an educational programme. It drew the special attention of the State Governments to the fact that a system could not properly be designated as basic education unless it provided for the full course, including both the junior and senior stages. It emphasized craft work both in its educational and productive aspects.

The Board also recommended the introduction of a minimum health service for school children and the necessity of approaching the Ministry of Industry and Supply for increased paper quotas for schools and other educational purposes.

The questions of increased facilities to women students to appear privately for university examinations and of university affiliation or non-official institutions conducting correspondence courses were referred to the Inter-University Board of Advice.

Social Education.—With regard to social education, the Board expressed the opinion that a basic education centre should also be utilized for training social education workers.

The Board recommended increased use of the machinery set up by the State Governments and official and non-official agencies for the production of social education literature in the national language and, in this connection, expressed the view that the social education pamphlets in Hindi, sponsored by the Central Ministry of Education and published through the Maktaba Jamia, should be given greater publicity.

Greater use was also recommended of the village stage, dramas, *Kathak* and ballad singers in the development of audio-visual education. The Board also emphasized the need to open annual training camps to train scout leaders, start Olympic organizations, open youth hostels and to provide facilities for inter-State travel for students.

The Board recommended that the Minister of Education, Government of India, may, in consultation with Ministers of Education in the States, examine again the desirability and possibility of forming an all-India educational service.

On the recommendation of the Board, the Education Minister has appointed a committee on general education to act as an advisory panel to the Planning Commission.

ENEMIES OF VITAMINS!

If you don't cook vegetables correctly an appalling amount of their precious vitamins and minerals go down the kitchen sink or up through the chimney. Because the most deadly enemies of vitamins are:—

(1) Water. (2) Heat. (3) Air.

Since most vegetables are rich sources of these vitamins, you must learn to control these enemies.

Attack the enemies thus:—

(1) Wash vegetables well under fresh, running water but do not soak.

(2) Serve some raw vegetables every day and prepare them just before serving.

(3) Shred greens and cook quickly in the smallest quantity of boiling, salted water for 10-15 minutes. Drain and serve immediately. Remember that soda destroys vitamins, while tamarind, lime juice or vinegar preserves them.

(4) Steam, boil or bake root vegetables in their skin for preference and where practical.

(5) Keep lids on vessels when cooking and do not stir more than once.

(6) Use all cooking water in soups and curries because some of the vitamins and minerals are in the water.

When you cook this way, you serve the "goodness" in vegetables and get "protection" necessary for radiant health.

COMMUNITY DEVELOPMENT PROJECTS

"Recognising that individual liberty, free institutions and independence, on the one hand, and sound economic conditions and stable international economic relationships, on the other hand, are mutually independent....."

Apparently formal and sounding like one of those inane clauses in any written document, this paragraph in the preamble to the Indo-U. S. Technical Co-operation Agreement, signed in New Delhi on January 5, 1952, is one of the most important portions of the six-page agreement, which outlines a unique plan for the all-round benefit of 12,000,000 people residing in 17,500 Indian villages.

This clause precisely defines the basis for Indo-American relations. Any document on Community development projects—perhaps the first major step in rural development which will ultimately arrest the ruinous drift of rural population to urban areas and bring to the surface the country's potential wealth —will not be complete without a reference to Indo-American relations.

The present relations between the two countries, it can be rightly assumed, took shape just about a year ago. Having created

the right atmosphere and having studied in detail India's manifold problems, Mr. Chester Bowles, the American Ambassador, unfolded to Mr. Jawaharlal Nehru, during an informal chat, his plan for developing community centres in India.

The story behind the Community Project scheme is that a Chinese philosopher, named George Yen, little known in India, first conceived this novel method of rural development, but by the time he could begin to implement the programme in China after getting belated encouragement from Marshal chiang Kai-shek and an aid of 30,000,000 dollars from the U. S., the country had come under Communist sway. Later, however, when Mr. Bowles met Mr. Yen at a number of UNESCO meetings, he became interested in the Chinese philosopher's ideal although little did he know then that he would very soon get an opportunity to work on that ideal.

An idealist himself, the Indian Prime Minister reacted favourably almost at once to the plan and subsequent discussions in regard to the details of the programme and negotiations regarding the extent to which the U. S. could aid the development scheme culminated in the signing of the agreement.

U. S. Deposit.—Under the agreement, the U. S. has agreed to deposit 50,000,000 dollars in a fund called the Indo-American Technical Co-operation Fund. The Indian Government will contribute an equal amount to the Fund and the projects financed by the Fund, which have already been included in the country's Five Year Plan, will be administered in close co-operation with the Central and State Governments.

Primarily aimed at increasing the country's agricultural efficiency and thus reducing her present dependence on food imports from abroad (at present the imports roughly amount to 5,000,000 tons at a cost of Rs. 250 crores), the plan calls for an intense three-stage drive to increase crop yields through modernised agricultural methods, to reclaim vast tracts of fallow land and to raise the standard of living of the people. These proposed rural-urban development projects will be modelled after pilot projects already successfully accomplished at Madras, Faridabad, Nilokheri and Etawah. In Etawah alone, during the last three years, under the guidance of Mr. Horace Holmes (Point-Four expert), 79,000 people in 102 villages covering an area of 100 square miles have demonstrated their ability to increase their food production by 45 per cent; have practically eliminated malaria, rinderpest and certain other diseases; and achieved marked improvement in literacy.

Two Main Types.—Located as far as possible in the neighbourhood of river valley projects financed by the World Bank, the community projects have been divided into two main types:

(*a*) The Basic Type Rural Community Development Projects: Each of this consists of 300 villages with a population of 200,000, in which the primary emphasis will be on raising agricultural production with some work on public health and sanitation, education and road-building. The smaller basic development "blocks" consisting of 100 villages will have exactly the same programme and same emphasis on agricultural development.

(*b*) Composite Type Community Development Projects: In these, the emphasis will be laid on development of small industries as well as agricultural production and also extension of existing urban amenities to rural areas. The plan also visualises the construction of new townships, the object being the creation of an integrated rural-cum-urban community.

Another more important phase of the development programme is the establishment of training centres for instructing village

workers either in or nearby rural development areas in order to give practical "on the job" training in villages to students.

Development Blocks.—For the successful operation of the programme, each project has been divided into three development blocks, each block consisting of about 100 villages. During the first year, work will commence in one development block. The remaining blocks will be taken in hand in the second year, and in the third year, work will be completed in all the three development blocks. Most of the non-recurring expenditure will be incurred during the first two years. It is estimated that every project would cost Rs. 65 lakhs during the three years.

A village unit, on the average, will consist of an approximate population of 500 distributed in about 100 families and each village will have two surface wells or tube wells or tanks for drinking water; adequate drainage facilities; agricultural extension work for every five villages; veterinary services at the project area headquarters with a network of peripatetic agencies; arrangements to serve half of the agricultural land with irrigation and to keep one-third of the area of the village reserved for housing, grazing fields and freshly planted, if not already existing, fuel forests; road facilities to link every village within the project area upto a maximum distance of half a mile from the village, the latter being connected by feeder roads through voluntary labour; schools for the primary education of all school going children and primary adult education and recreation centres in the open air.

Common Market.—A group of villages will be linked up with a common market and a centre of other activities called *"Mandi"* and each *"Mandi"* will include a middle or secondary school, a small dispensary connected with the primary health centre through mobile services, an agricultural extension service headquarters, a post and telegraph office, a transport service centre, a marketing centre, an arts and crafts centre, a shopping centre, a recreation centre, a model farm and an open-air dispensary for veterinary services.

The schematic distribution of the population of a village unit, which forms the basis of the project is as follows: Agriculturists (50), Agricultural labour, tractor and pump drivers, etc. (10), arts and crafts and cottage industry workers (12), workers in urban small scale industries (10), building trade workers (1.5), transport workers (2), shop-keepers (3.5), school teachers (3), health services, including adult education and other welfare workers (2), postman (0.25), barber (0.25), butcher, cobbler, etc. (0.50), contribution towards administrative and supervisory services (1), contribution towards security and defence services (1) and vagabonds (3). The total is 100.

Four to five *Mandi* centres together with their satellite villages will constitute a development block, a kind of rural-cum-urban township with an approximate population of 5,000 distributed in 1,000 families. The development block is scheduled to have all the amenities now available in urban areas. Financial and other limitations, however, have forced the exclusion of development blocks from the present Government-sponsored programme.

Five stages have been prescribed for the completion of a community project in three years. They are: Conception (selection of area, its economic survey and planning of amenities)—three months; Initiation (establishment of communications within the operational zone, stock-piling of material and other preliminary preparations)—six months; Operation (all activity concerning the project)—18 months; Consolidation (winding up work)—six months and Finalisation (finishing touches)—three months.

Central Committee.—The scheme aims at the maximum utilisation of the existng machinery of the Government. Guidance on matters of principle comes from a Central Committee consisting of the members of the Planning Commission, with the Prime Minister as Chairman. The Chief Executive Officer is the Administrator, advised by a committee consisting of nominees of the various Ministries of the Government of India as also by a team of technical experts.

At the State level, there is a State Development Committee, with the Chief Minister as Chairman and the Chief Executive Officer is the Development Commissioner. As at the Centre, the Development Commissioner assisted by a technical advisory committee and a team of specialists.

At the project level, the executive head is the Project Executive Officer, who will have the benefit of the assistance of the existing development departments of the State Governments as well as additional personnel, technical and non-technical, specially earmarked for the project. There will besides be a project advisory committee which will include local representative in Parliament, the State legislatures, the Chairman of the District Board, leading workers and representative agriculturists.

So far, 44 project areas and 28 development blocks comprising nearly 26,000 square miles of area in about 17,500 villages covering over 12,000,000 people have been selected for community development work in the various parts of the country. Initial work in connection with these projects was started in June. At present, an extensive survey work is being carried out, preliminary to launching field operations.

Although the development of community projects is restricted to selected and strategic centres, their successful completion will bring material benefit even to people living away from those areas as the productive output of the country will increase considerably.

BIRTH CONTROL AND CHILD MORTALITY IN INDIA

Inaugurating the All India Pediatric Conference at Madras, Mr. Sri Prakasa, Governor of Madras, appealed to medical men to take up seriously the question of birth control to prevent child mortality and sufferings of the mother.

The Governor deplored the high rate of child mortality that prevailed in India and the sufferings that many mothers were put to through child-bearing.

"The problem of preventing the birth of unwanted children must be taken up so that our population may not rise to an alarming and disproportionate extent" he added. Unfortunately, the Governor said, civil and social sense was very much wanting in India, with the result that they found children put to sufferings often due to sheer indifference of the elders.

Mr. Sri Prakasa suggested that, while studying diseases of children, doctors should also study the disease of the minds of the elders that led to neglect of the child and several diseases flowing from that neglect.

The problem of the child was interrelated with that of its parents. Something was wrong in their homes, the Governor said, and asked medical men to give proper advice to parents in health matters.

Dr. M. B. Prabhu, a former Superintendent, Madras Women's and Children's Hospital, said the morbidity and mortality among children in India was high and it was twice as much as, if not more than in the western countries.

Prophylactic Measures.—He said in few other fields did prophylactic measures give them such rich harvests as in the field of

child-care and child health. Here could all hands join to reap the benefit, Dr. Prabhu said, whether they were Government agencies or private bodies or men and women in all walks of life.

Dr. Prabhu emphasised the importance of research in regard to nutritional needs and disease of children and thanked the State Government and Madras University for instituting a chair of pediatrics—the first of its kind in India.

Dr. Prabhu stressed the need for greater discrimination in the use of antibiotics in the treatment of children's diseases.

Earlier, Dr. Lakshmanaswami Mudaliar, Chairman of the Reception Committee, said the time had come when the medical profession should take a larger interest in the promotion of health and welfare of the people and "make it our concern to give proper advice to those who, for once, hold the political reins in their hands."

The role of the medical practitioner, he said, was to ensure health and not to cure disease alone, and from that point of view, a reorientation of the policy of medical education was urgently needed. "It is with this view that the Indian Medical Council had recently revised its regulation in the light of recommendations made by a sub-committee appointed for that purpose," Dr. Mudaliar said.

TATA INSTITUTE NEWS

CLASS OF 1952-'54

Abraham, (Miss) H. J., Nasik, Bombay State
B. A. (Hons.), Bombay University 1952

Apte, J. S., Poona, Bombay State
B. A., Poona University 1951

Ashghar Ali, A. K., Bombay, Bombay State
B. A. (Hons.), Bombay University 1952

Balsekar, (Miss) C. A., Bombay, Bombay State
B. A. (Hons.), Bombay University 1951

Chakraborty, (Mrs.) B., Calcutta, W. Bengal
B. A., Calcutta University 1950
M. A., „ „ 1952

Deshpande, V. G., Hubli, Bombay State
B. A., Karnataka University 1952

Jhirad, (Miss) J. M., Poona, Bombay State
B. A. (Hons), Bombay University 1952

Katiyar, H. C., Hatras, Uttar Pradesh
B. Com., Agra University 1950
M. A., „ „ 1952

Lakshmi Kumari, (Miss) K., Vizagapatam, Madras State
B. A. (Hons.), Andhra University 1952

Parekh, (Miss) S. N., Junagadh, Saurashtra State
B. A., Bombay University 1946
M. A., „ „ 1949

Patwardhan, K. R., Poona, Bombay State
B.A., Poona University 1950

Pillai, A. R., Alleppey, Travancore—Cochin State
B. A., Travancore University 1950
M. A., Saugor University 1952

Pinge, D. S. Karwar, Bombay State
B. Sc., Bombay University 1945
B. T., „ „ 1949

Purohit, (Mrs.) H. G., Rajkot, Saurashtra State
B. A., S. N. D. T. Women's University 1952

Saraswat, H. M., Aligarh, Uttar Pradesh
B. Com., Agra University 1949
M. Com., „ „ 1951
LL. B., „ „ 1952

Sarkar, A. K., Calcutta, W. Bengal
B. A., Calcutta University 1948
M. A., „ „ 1951

Sharma, K. K., Rohta, Uttar Pradesh
B. A., Agra University 1950
M. A., „ „ 1952

Siriah, (Miss) A., Nagpur, Madhya Pradesh
B. A., Nagpur University 1950
M.A., „ 1952

Songadwala, S. E., Calcutta, W. Bengal
B. Sc., Calcutta University 1951

Srinivasachary, M., Hyderabad, Hyderabad State
B. A., Osmania University 1950
M. A., „ „ 1952

Veda Vrata, Allahabad, Uttar Pradesh
B. A., Allahabad University 1950
M. A., „ „ 1952

Verma, S. K., Saugor, Madhya Pradesh
B. A., Nagpur University 1948
M. A., „ „ 1950
LL. B., „ „ 1952

Wadhwani, N. T., Lucknow, Uttar Pradesh
B. A., Lucknow University 1950
M. A., „ „ 1952

BOOK REVIEWS

Indians Overseas 1838-1949—*C. Kondapi.* (Indian Council of World Affairs, Oxford University Press, 1951, pp. 558, Price Rs. 20/-.)

"INDIANS OVERSEAS" is of great interest in these days of considerable discussion on the problem of population and racial segregation. The title indicates correctly that the historical aspect of Indian emigration is dealt with in this book. A large proportion of Indian emigrants being labourers, the labour conditions of Indians abroad are given prominent place. Many of the early reports by travellers and explorers in East Africa mention that many Indians from Kutch and Gujerat were remarkably successful in making money. Somehow, Mr. Kondapi has not dealt fully about the commercial class of Indians in foreign countries. He has covered all the countries, wherever Indians have been staying, and described their conditions during a period of more than one century. Consequently, the book runs into 558 pages. It is a rich mine of information, collected from various reports and books and presented with great labour.

Attention is focussed on the disabilities of Indians abroad, and a chapter running into more than 200 pages deals exhaustively with (1) restrictions on entry and residence, (2) restrictions on occupation and ownership of land, (3) restrictions on trading rights, (4) restrictions on employment and service and (5) social and religious disabilities. Had the author added a chapter or two bringing out the contribution of Indian emigrants to the economic and cultural development of the adopted countries, this book would have been more complete and lively.

In fact Mr. Kondapi has studied the topic thoroughly and completely. His suggestions for the betterment of the conditions of Indians emigrating to other countries deserve careful consideration. "The Kangany and Maistry systems of control, which are based upon the aggrandisement of a middleman employer to the detriment of labour, must first be replaced by a more satisfactory system." Creation of employment exchanges and other suitable organisations for regulating labour movements are suggested. Free and voluntary emigration of labour based on a full and precise knowledge of the conditions of employment and living in the immigrant countries are also suggested. But this book of 558 pages does not indicate the existing line of wages, salaries and incomes of different occupational groups in different countries of immigration. The author mentions that conditions could be improved to some extent if the Government of India enters into bilateral agreements with countries which need Indian labour. It is mentioned that restrictions on the immigration of unskilled labour should be based on a system of quotas fixed in relation to the local conditions and requirements and not on racial considerations. One cannot say when racial prejudices throughout the world and provincial prejudices in India will vanish. Mr. Kondapi has appropriately mentioned that emigrants should learn something about the customs, habits, traditions of colonial communities, etc., before leaving India. He has added that Indians should change their attitude and refuse to invoke the special vetoing powers of the Governor or the Secretary of State for the Colonies.

With the rich information presented by the author, those who are interested in the problem of Indian emigration may study the present conditions, abroad and suggest some substantial ways and means of improving a desirable flow of excess population from India.

G. Raghava Rao